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a journal of strategic insight and foresight

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The Crisis Issue

P.10
Marketing: Born in Crisis

P.12
Lead Your Company Out of a Crisis

P.24
Urban Rebirth

P.42
The Fall of the Doctor

P.46
The ISIS Crisis: Foresight Fail?

P.92
The Future of Crisis



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Contents

Marketing: Born in Crisis 10

How to Lead Your Company Out of a Crisis 12

Urban Rebirth 24

In the World of Startups, “Crisis” is a Nonexistent Concept 36

The Fall of the Doctor 42

The ISIS Crisis: Foresight Fail? 46

Customer Experience Through the Lens of Organizational Growth 76

The Future of Crisis 92

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Canada
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United States
649 Front Street, Suite 300
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United Kingdom
85 Great Eastern Street London,
EC2A 3HY United Kingdom

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Email
misc@miscmagazine.com

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Salvatore Ferragamo

Welcome to the Crisis issue.

Putting this issue together, the real question was: What isn't in crisis? And what even is the difference between a status quo that needs to be disrupted, versus something that merely can be?

As I write this on a late summer afternoon – a time referred to by journalists of yore as a period for slow news – I decided to see what today's reporters considered newsworthy. *The New York Times* greeted me with "Terror Inquiries Gain Urgency as ISIS Inspires Attacks in U.S." *The Wall Street Journal* introduced itself with "China Stocks Plunge as Beijing's Bid to Buoy Prices Falters." *Forbes* emerged as the optimist of the bunch, compensating with "Health Industry Trends To Watch," albeit captioning it with the somewhat ominous "soon, the healthcare industry will begin to look like the business world."

We undoubtedly live in a time of perpetual upheaval. The past decade has seen the worthwhile dismantling of various systems and hierarchies: The $300,000 taxicab licenses surrendered to an app that bestows accountability, accessibility, and convenience to both passenger and driver. The democratization of health, enabled by both policy and technology, is well in the process of upending the economic barriers of receiving care. After the anarchic honeymoon, digital natives are now beginning to define the constitutions of online freedom.

However, as evidenced by my latter point, each solution could be more fodder for our next generation of crisis harbingers. As innovators, are we not thinking long-term enough? Should the primary measure of excellence, then, be in the ability to not only rise above – but stay above the fray?

But that isn't how innovation works. It is in its nature to be disruptive in the most traditional sense of the word: upending not only what isn't working, but also what is just "good enough," and an innovative idea does not necessarily mean a unique one. It isn't enough to be better and different. We have dissected our fair share of crises in this issue. Each piece – whether a diagnosis of a crisis, or an autopsy after the fact, or explorations of the in-between – has served to deepen the importance of anticipation. To properly herald this new emphasis, we'd like to announce a small change in direction.

The previous issues of *MISC* have brought forth hundreds of pieces on what was and what could be. In the years since its inception, we together with Idea Couture have grown immensely. In addition to welcoming you to this Crisis issue, we would like to introduce you to the new *MISC: A Journal of Strategic Insight and Foresight*. This isn't a change of editorial direction, but rather, an assertion of what we had been delivering all along: an outlet for both opinion and imagination, where we embrace conflict and consensus in equal measures.

Enjoy this Crisis issue.



Idris Mootee
Publisher /
Editor-in-Chief

Sleepwalking Into Crisis

BY VURAIN TABVUMA

We are always getting into one crisis or another. In July 2015, Chinese stock markets fell over 30% in two weeks, wiping away trillions of dollars worth of value for millions of investors. Looking back, we have had numerous market crises in history, from the Dutch tulip bubble of the 1630s, to the stock market crash of 1929, and, most recently, the 2008 financial crisis.

At the organizational level, we are littered with examples of crises in firms that, with hindsight, we can't help but wonder how they could have happened. Why did we not learn from Enron and Arthur Andersen? Lehman Brothers' demise seems to have hardly caused any changes in the corporate culture of large banks. Surely companies – such as Olympus and Tesco, both recently engulfed in financial scandal – should have learned from this sordid history and known better.

But behavioral science says otherwise. It can help us understand why we find it difficult to learn from and anticipate crisis, even in cases where there is clear evidence that there may be problems on the horizon.

Herd Behavior

In 1951, social psychologist Solomon Asch conducted an experiment where he asked participants to match a line on one card to one of three on a separate card. While the matching task was so easy it could be done by a kindergartener, he found that people consistently matched lines to ones that were blatantly wrong. Why? Because some people, who were part of the experiment, had chosen the wrong line.

We underestimate the degree to which our choices are based on the actions of others. On the one hand, this may be good for achieving group cohesion. However, when people are in situations where they have to choose between making the rational (and often correct) decision or following someone else's ill-advised actions, people choose the latter, as revealed by Asch. Just look to the highly trained accountants working at Arthur Andersen, who turned a blind eye and continued with illegal and unethical practices during their auditing of Enron. Crisis could have been averted if people had been more willing to speak out and break toxic organizational norms.

This herding behavior will also likely take place when there is risk, and employees are concerned about how their performance will be evaluated. This is particularly salient when making investment decisions. In *The General Theory of Employment, Interest, and Money*, author and economist John Maynard Keynes, the pioneer of modern macroeconomics, wrote of fund managers: "If he is successful, that will only confirm the general belief in his rashness, and if in the short-run he is unsuccessful, which is very likely, he will not receive much mercy. Worldly wisdom teaches that it is better for the reputation to fail conventionally than to succeed unconventionally."

This explains why financial markets are always in one form of crisis or another. Investment decisions are often not based on logic, but on people mimicking other people – even when their investment decisions are bad ones.

Power Distance

In his book, *Outliers: The Story of Success*, Malcolm Gladwell describes how Korean Air's terrible safety record of the late 1990s was explained by cultural factors. More specifically, he makes the case that high regard for authority caused subordinates to not question the actions of superiors, even in the face of impending disaster. He gives the example of salvaged black box flight recordings that have a co-pilot very gently telling the captain to look at the horizon moments before it crashed into a mountain.

This type of behavior is typical of instances where there is high power distance and people have reverence for authority. In such cases, subordinates are less likely to question decisions and actions, and simply follow whatever orders have been given, no matter how ill advised. They are less likely to take the necessary steps to avoid a crisis and, as seen with Korean Air, the results can be deadly.

PHOTO: DR. TED WITEK



Charismatic Leadership

Charisma is often thought to be essential for effective leadership, and while it may have some benefits in the short-term – such as inspired employees and progress within an organization – in the long-term it can have disastrous effects. Charismatic leaders can inspire people to do the wrong thing and can cause followers to dilute their reasoning and judgment. Perhaps the most famous example is Adolf Hitler, who by all accounts was very charismatic, and yet he inspired followers to commit some of the worst atrocities in recent history and caused one of humanity's greatest crises, the Second World War.

In the corporate world, charismatic leaders such as Steve Jobs are often presented as the ideal. However, recent research by Christian Stadler, an associate professor from Warwick Business School, shows that in most instances throughout corporate history, charismatic leadership has not been successful and Jobs may very well be an anomaly. We should not forget the likes of Michael Milken and the junk bond crisis that put Drexel Burnham Lambert, a former major investment bank, out of business, or former corporate superstar Jean Marie Messier and his inspired drive to turn a French water company, Vivendi, into one of the largest media companies in the world – which ultimately resulted in an annual loss of over $11 billion in 2001.

Situational Factors

To prevent crisis, we need to fully appreciate the situational factors that lead to crisis. Often our views on the matter are too rational and shortsighted, only considering the observed benefits and costs. We should appreciate that situational factors – herding, cultural influence, the type of leadership – have a much larger influence on our behavior than we like to believe. ////

Dr. Vurain Tabvuma is a behavioral economist and the head of quantitative analysis at Idea Couture. He is based in Toronto, Canada.

Marketing: Born in Crisis

BY WILL NOVOSEDLIK

Marketing, as we know it, was not only born in a crisis, but in a place that most of us would not ordinarily associate with business: the Vatican.

Although ostensibly a "spiritual" capital, by the mid 16th century, the Vatican was big business. The Roman Catholic Church had become, in branding terms, the McDonald's of its time. There was one on every street corner in Europe. Virtually every European was baptized in the Catholic faith. It was a one-brand market.

Like all monopolies, it had become fat, corrupt, and not a little arrogant. By the time of the Renaissance, popes and cardinals were living like Russian oligarchs, amassing great personal wealth, accumulating concubines, and siring broods of "illegitimate" children – many of whom grew up to become clerics and Vatican bureaucrats themselves. And they did that on the back of the tithe – donations that the faithful were (and still are) compelled to make every time they went to church.

It was one type of donation in particular that tipped the scales against the Vatican: indulgences, which were essentially a "get out of purgatory" card. Buying one meant you could go straight to Heaven when you died, thus avoiding the fiery way station that only the most virtuous of believers were entitled to bypass.

It didn't take too long before adherents saw through this ruse, for how could one possibly back up such a guarantee – let alone put a price on it? Thus in 1517, when reformist Martin Luther nailed the 95 Theses to the door of his parish church, Rome experienced a virulent threat to its hitherto uncontested market share. By 1545, assisted by Gutenberg's printing press, Luther's reforms caught on across Europe, causing significant enough "leakage" to spur the Vatican into action.

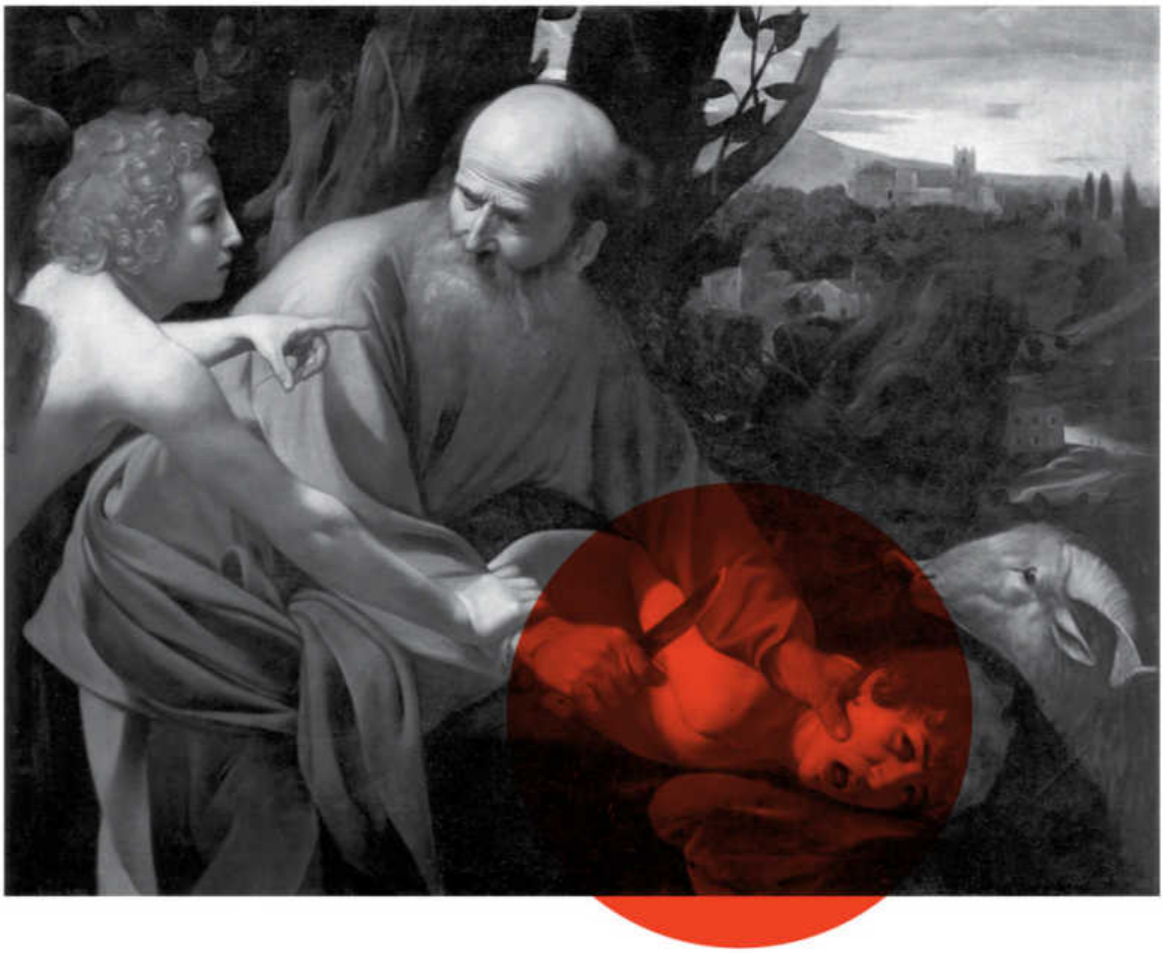
In response to this crisis of faith, the Vatican called a meeting: the famous Council of Trent (1545–1563). Over the course of 25 gatherings, the Council invented virtually every tool now found in the marketer's woodshed.

Take advertising, for instance. One of the core commitments of the Council was to "strengthen Catholic doctrine." They decided to do that by using the most powerful tool at their disposal: art.

Engaging an A-list of painters, sculptors, and architects, the church adorned its buildings with some of the most emotionally engaging imagery ever created. It was called the Baroque, but it was actually the first and longest ad campaign in history (it lasted a hundred years). Imagine the impact that an image like Caravaggio's *Sacrifice of Isaac* or Bernini's *The Ecstasy of Saint Teresa* would have had on the faithful seeing it for the first time. Five hundred years on, these works are still extremely moving, even for a non-believer.

You can respond to loss of market share in two ways: One, work to retain the customers you already have, and two, expand into new markets. The church did both. All that emotionally engaging Baroque art was meant to strike enough fear and awe in your heart to make you remain in the arms of Holy Mother Church. To expand into new markets, however, the church needed a global sales team. So it created its own marine corps of evangelists: the Jesuits.

This was the beginning of colonization by European powers, and everywhere the conquerors went, the Jesuits



went with them. They proved to be very effective salesmen, winning over new souls (i.e. new customers) in Asia, Africa, and North and South America. The fact that Catholicism is still the world's largest religion is a testament to their efforts. And the fact that we still use the word "conversion" to describe the acquisition of a new customer is a testament to their methods.

One of the key rules of branding is remaining true to your "essence" or core. Staying "on brand" demands discipline and persistence, and the temptation – hard to avoid the language of religious doctrine, isn't it? – is to match the offers of new entrants in the hopes that you will crush the puny upstarts with the sheer weight of your incumbency. In the face of Protestantism, however, the Vatican stayed true to its core, not only refusing to change its doctrine, but working to strengthen and renew it. While cleaving to its essence, it could watch upstarts proliferate and squabble among themselves over infinitesimal differences in their teachings and precepts.

When asked, most people would say that marketing and branding were born on Madison Avenue. But make no mistake: Don Draper learned everything he knew about marketing from Pope Paul III (who launched the Council of Trent), even if his lifestyle was more like that of Pope Alexander VI (who had a wife, a mistress, and several children). Some things never change. ////

Will Novosedlik is AVP, head of growth partnerships at Idea Couture. He is based in Toronto, Canada.



How to Lead Your Company Out of a Crisis

BY IDRIS MOOTEE

Most executives and managers, once or twice in their careers, encounter or miss the early signs of distress leading up to a company crisis, whether driven by technology disruptions, industry consolidation, regulatory change, or a combination of all. Seeing it coming is not enough. It must be acknowledged that there is a problem – not just an industry lifecycle problem – but an organizational crisis in the making. Acknowledging it raises a sense of awareness and urgency, a far better solution than pretending the problem will go away or be resolved by deep cost cutting and restructuring. Often, this goes beyond operational efficiencies; it is about coping with the big shift and navigating your way out of it.

An apt metaphor is putting a frog in hot water: The frog won't notice the water is heating up until it is too late. Today, shifts usually happen fast and the heating up is intense. The question is, what can the frog do?

PHOTO: POOLIE

Executives may be smart and highly experienced, but – having looked at similar numbers before – may assume the situation is of a cyclical nature and will reverse. Those who work with these old assumptions and expired business models will find that most shifts today are unpredictable, catching them off guard. Everyone checks the milk in the fridge to make sure it's not expired. Why wouldn't companies check their business models too?

Today's enterprises have access to massive data, but even a data-driven approach to strategic management may not be able to predict or explain the shift. Oftentimes, executives also get caught up in the pressure for short-term financial returns, ignoring their company's long-term health – or even wilfully sacrificing it. Cheap capital should not be used as an excuse for inaction, and spending your way out of the problem is a desperate move that won't save the company.

Less than one out of ten executives step back to look at the macro environment and try to see what is causing the shift, objectively asking, "What is actually going on and what does all this mean to our business strategy? What would the impact be in the long run? Are we heading into a crisis and, if so, how threatening is it? What are the different options and scenarios we can use to get out of this, and how would each one implicate our business models? What is the rate of survival?"

The answers don't have to be complicated.

01

Contain your crisis and don't let the company go into panic mode.

It's not helpful for a company if people are making decisions under distress. Leaders may be in survival mode, conservatism takes over, and some become defensive, deflecting any responsibility for creating the crisis. There are usually more than a few reasons for any company to be in crisis, but often the primary issue is missing the big shift and becoming irrelevant. Whatever the scenario, stay calm and don't panic. Good crisis leadership can be the difference between life and death – between the company surviving or going bankrupt.

Rudy Giuliani phrased it well when he said, "It is in times of crisis that good leaders emerge." It is at these times that you see who the true leaders are, which ones can take the pressure, and which ones get people rallied around a common vision forward, instead of giving in to the despair around them.

02

Avoid jumping into a plan too quickly.

Having a plan is probably not a good idea. A plan means you have flushed out all strategic and tactical components, as if things are in a static state. When a shift happens, it doesn't have a clear starting point or end state, thus creating a plan based on many moving parts is pointless. The key is to understand the weak signals and how they shape the dynamics of the industry structure and value flow. Once there is a mental map developed and visualized, management can see where value is flowing and debate value creation and value capture mechanisms. You can now look at the potential impact on basic market performance, financial metrics, and cash flow, and where you could be with respect to your industry and competitors if you stay on course.

03

Leverage your board and rally them.

This is the time to leverage your board and expect to get more from them. The beauty of a strong board is that they can provide a cross-industry perspective; by having a reasonable distance from the company, they can see the forest for the trees. Managers often treat their board as another roadshow to finish so they can get on with their real work. It is a mistake to undermine the board's role as both an early-warning detection system and strategy oversight for navigating the big shift. They can also highlight risks – be it real or not – and pinpoint significant events that few could have foreseen.

04

Unlock finances and rigorously manage cash flow.

Money is the bloodline of a company. Before a new business model kicks in, it is critical to manage cash flow. In addition to rigorously managing costs, the company should unlock cash from assets that are not core to the business. It's a mistake to maximize immediate return. In most situations, there is a time period for reinvestments, and burning cash for a controlled period of time is not a bad thing. No company can cut their way out of a crisis, unless the goal is to stabilize for a sale. Eventually the company needs to bring in cash, but insisting that it happen too quickly will undermine the company's success in the long run. Cash management is key to ensuring there is some predictability and no nasty surprises. If not done well, it can send a company into a spiral they may not recover from.

05

Create an emotional and credible story.

Companies in distress don't focus enough on creating a change story that is credible, industry-relevant, proud, and emotional. If you can tell that story in a paragraph or less, in a tone that means something to the people on the front line, they will get on board. The key is to have a simple message and an emotional and credible story. Admit your company is in a crisis, but don't show signs of panic. Demand significant action, but not desperate ones. A company that is in a true crisis will be willing to try radical moves it normally wouldn't consider, and it's those bold actions that change its trajectory.

Starbucks is one of the best recent turnaround stories. When Howard Schultz talked about his plan for Starbucks when it was in a crisis, he – unlike other leaders – also spoke about his feelings and taking things personally. He admitted that Starbucks had lost its edge, stating that they were "being squeezed from the bottom by fast food brands like McDonald's and Dunkin' Donuts, and from the top by high-end independent coffee shops." Schultz told an emotional story of how the company had forgotten what it was all about: coffee. He made himself credible by making a symbolic move: In February, 2008 he closed all 7,100 stores in the United States for a few hours to re-train baristas. It was an emotive story to bring the magic back, supported by action.

06

Build a new leadership team and inject it with new energy.

There are two types of leaders you will need for your new leadership team. One is strategic leadership: those who can see beyond the crisis, understand the industry dynamics, and think ahead of the curve. These leaders understand how to create value by aligning with the future. The second are leaders with institutional knowledge. They don't need to be top performers, but they know all the ins and outs of the organization and ecosystem. They are the ones who can execute the turnaround, but aren't leading it. A leadership team needs to have both kinds of executive leadership in order to work. Look for people who are two and three levels down, waiting for an opportunity to demonstrate their leadership potential. Find outside consultants who can bring fresh views and carry no baggage, and make them feel that they can be part of something bigger than themselves; saving a company and making it great again is a good selling point.

Leadership in a crisis mode requires more than just good managers and operators. You need to simplify complex and dynamic scenarios into something people can understand and make bold decisions. As General Colin Powell says, "Great leaders are almost always great simplifiers, who can cut through argument, debate, and doubt to offer a solution everybody can understand." ////

Idris Mootee is the publisher and editor-in-chief of MISC and CEO of Idea Couture. He spends his time between London, New York, San Francisco, and Shanghai.



PHOTO: RUDOLF SCHUBA


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What's the biggest crisis facing business today?

BY WILL NOVOSEDLIK

We seem to live in a time of non-stop crises. With always-on, 24/7 media coming at us from a myriad of global channels, it's hard not to go through a day without hearing about something going horribly wrong somewhere in the world. We asked executives, educators, and journalists what they thought was the biggest crisis facing today's organizations.

There's an overabundance of content, with quality content at a minimum. It's hard to break through the clutter in that situation



SCOTT MONTY
@SCOTTMONTY

Scott Monty is a business commentator, consultant, advisor, keynote speaker, editor, and co-host of ihearofsherlock.com.



CARY COOPER
@PROFCARYCOOPER

Professor Sir Cary Cooper is director and founder of Robertson Cooper, and 50th Anniversary Professor of Organizational Psychology & Health at MBS Manchester University.

One major problem facing biz today is to attract more socially skilled mgrs at all levels 2 enhance wellbeing & productivity



CV HARQUAIL
@CVHARQUAIL

CV Harquail is an entrepreneur of insights, strategist, change advocate, management scholar, and cofounder of @FeministsAtWork.

Income inequality and giving employees their share of increased productivity

I believe cyber security is the biggest crisis corporations face. Good news is it can be prepared for. Bad news… it's ongoing



ERIKA JAMES
@ERIKAHJAMES

Erika Hayes James is dean of the Goizueta Business School at Emory University and author of Leading Under Pressure: From Surviving to Thriving Before, During, and After a Crisis.

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SHAI RESHEF
@SHAIRESHEF

Shai Reshef is president of @UoPeople, a non-profit, tuition-free, and accredited online university.



IOANNIS IOANNOU
@IIOANNOULBS

Ioannis Ioannou is professor of strategy at London Business School.

Managing in addition to, but also beyond the economic context, to integrate social & environmental issues into strategy #susty



FELIX SALMON
@FELIXSALMON

Felix Salmon is senior editor at Fusion *and previously a financial blogger for* Thomson Reuters.

Climate change



ESTELLE METAYER
@COMPETIA

Estelle Metayer is adjunct professor at McGill University, where she teaches the International and National Advanced Leadership and the International Master for Health Leadership programs. She is also a board member at Zag Bank.



SAMUEL AZOUT
@SAMUELAZOUT

Samuel Azout is a Colombian economist and entrepreneur dedicated to not-for-profit work in poverty alleviation and social inclusion.

The capacity to move from single to triple bottom line is the biggest challenge facing business today

No mid- to long-term certainties

Gender inequality. Women challenge the status quo bc we are never it. Make your leadership/board 50/50 M/F = better biz results



CINDY GALLOP
@CINDYGALLOP

Cindy Gallop is an advertising consultant, founder, and former chair of the US branch of advertising firm Bartle Bogle Hegarty, and founder of IfWeRanTheWorld and MakeLoveNotPorn.

A legitimacy crisis: can businesses address the most pressing problems of our society and environment?



THOMAS ROULET
@THOMROULET

Thomas Roulet is an economic sociologist and management scholar, currently at King's College London, a fellow at the Oxford PSF Centre, and affiliated faculty at SnO HEC Paris.

Dr. Me



Envisioning potential negative implications of a democratized, patient-empowered health system

BY SHANE SAUNDERSON

Let's start by taking the following as givens.

As the growing elderly population floods the healthcare system, it will introduce a strain that our current methods of care will not be able to properly handle.

The desire for patient empowerment will continue to shift greater care responsibilities away from traditional providers and towards individuals, who will manage themselves.

Medical technologies will aid this empowerment by commoditizing historically complex and expensive medical procedures into common tasks performed by smartphone accessories.

Medical diagnosis and treatment knowledge will become universally and freely available and, more importantly, translated into humanistic, accessible language.

The convergence of these trends and more will lead us to, in my opinion, two inevitabilities. First will be a healthcare renaissance. By placing the knowledge, technology, and responsibility for care in the hands of everyday people, we will upset thousands of years of reliance upon medical professionals. We will change the basic roles in the healthcare system out of both desire and necessity. We will reserve doctors as consultants for only the most complex and challenging medical conditions. We will give greater authority to nurses and technicians to carry out increasingly common and routine medical functions. We will create machines capable of automating a number of medical procedures such as surgery and basic checkups. And at the center of all of this will sit you and I: everyday individuals who will essentially act as our own GPs and be the centerpiece of monitoring, managing, and making decisions about our own health.

The second inevitability will be the absolute clusterfuck that ensues around giving every Tom, Dick, and Harry their own stethoscope and telling them "you're in charge." While the health community will undoubtedly do their best and take every precaution to transfer this responsibility seamlessly and effectively, if history has anything to say about how changes to our health system roll out, we can anticipate at least a few hiccups. Misinformation, wrongful self-experimentation, abuse of medications and treatments, and medical obsessions are only a few of the challenges that await this "utopian," fully empowered health system. And while guys like me will do our best to help design a system that is completely foolproof, I am reminded of the Douglas Adams quote: "A common mistake that people make when trying to design something completely foolproof is to underestimate the ingenuity of complete fools."

PHOTO: MIKAEL TIGERSTRÖM

Bigger, Stronger, Faster, Deader

Naturally, we can expect many people to abuse these newfound tools and responsibilities. In true human fashion, it's never enough to simply be healthy, and one could easily imagine the use of devices and medications to be experimented with in an attempt to augment and enhance our bodies. But when is enough, enough? In the pursuit of human perfection, how far will we push the baseline of health and our understanding of normalcy? We're already starting to see these types of enhancements in experiments with night vision eyes, superior prosthetic legs, and even cosmetic surgeries. Where do we draw the line?

Some people may be successful with these modifications and find ways of using medical technologies to push their abilities and health beyond the status quo. Others, largely bereft of the experience or intelligence to understand the consequences of their actions, will fail miserably, making themselves even sicker, possibly disabled, or, while simultaneously upping the competition in the annual Darwin awards, dead.

Black Market Care

Even with self-administered care available, limitations will still need to be put on the accessibility and dispensing of medicines or treatments. But fear not: Where there's a will, there's a black market. In order to support the abuses outlined above, the underground economy will undoubtedly find a way to provide access to medications and technologies for your every whim and fancy. Even when considering legal access to medical resources, this reality simply highlights the need for new distribution models, which will emerge through whatever channels, above or below the board, it can.

Beyond simply enabling off-label use and abuse, the creation of such a market could have a host of knock-on effects present in any criminal activity – theft, murder, bribery, and all sorts of other fun things. In short, the medical black market of the future may make today's drug trade look like a game of Monopoly. Perhaps some in the legal community also envision this future and are taking steps, such as the life imprisonment of Silk Road founder, Ross Ulbricht, to send a not-so-subtle warning.

Hyper Hypochondriacs

We all have one of those friends who believes they're always sick; whenever some new outbreak or condition is announced on the news, they're convinced they have it. They got E. coli from their burger. They got an STD from a toilet seat. That rash on their arm is necrotizing fasciitis. Imagine what these types of people will do when you give them the knowledge, technology, and responsibility for diagnosing themselves. Suddenly, the blissful ignorance that so many of us living under the care of medical professionals enjoy will be snatched from our medically-apathetic selves. And for those who constantly fret and worry about their bodies, we will show them the spiral through which they might descend into a medical information-fuelled madness.

While some hypochondriacs may actually benefit from the immediacy of self-monitoring, others will collect every piece of data available on their body and scream bloody murder each time the slightest deviation surfaces in one of their health metrics. And it's not just the massive time sink and anxiety source for these individuals that is worrisome; think of everyone around them (who is also a sort of doctor), who will have to listen and be consulted every time their heart skips a beat.

Medical Celebrities

Our celebrity-obsessed society may encounter a few issues in this empowered future as well. Initially, traditional celebrities – athletes, actors, or models – will become templates for the rest of us to model our lives after. Instead of simply buying an athlete's workout routine or a model's diet cookbook, they'll now be able to package and sell the full set of their health data to compare against and use as an unnatural target point for our own bodies. However, over time, we will enable an entirely new form of celebrity whose rise to fame will not be through athletic prowess or artistic talent, but simply the rarity of biological perfection. Individuals will be revered simply for having a numerically superior health makeup, and I shudder to envision the dangers and insanity around coveting better, yet possibly unattainable, medical metrics.

Our obsession with such meaningless and impossible numbers will drive us to take unnatural actions in the name of better data. Drugs could be developed to artificially adjust the blood's chemical composition. Surgeries could be performed to unnaturally raise or lower heart rate. We will lose sight of the importance of our wellbeing and go to dangerous lengths to optimize our numeric health, potentially at the expense of our actual health.



The scenarios presented are not intended to be prophecies of doom and gloom, but instead speculations on how our health system could evolve given the emerging shifts we see around us and our natural curiosity and human inclination to mess with everything we touch. If stakeholders in the health system are aware of the changing social and technological landscapes and are smart about their designs, these types of scenarios can likely be avoided. The last thing we need is for one of the greatest shifts in healthcare since the Hippocratic Oath to be mired by the irresponsible follies of man.

However, we do love our follies. ////

Shane Saunderson is the head of health technology at Idea Couture. He is based in Toronto, Canada.

00

Urban Rebirth

How the crumbling city of Medellín came to thrive, and what leaders in crisis can learn from it

BY MARINA ANDREAZI

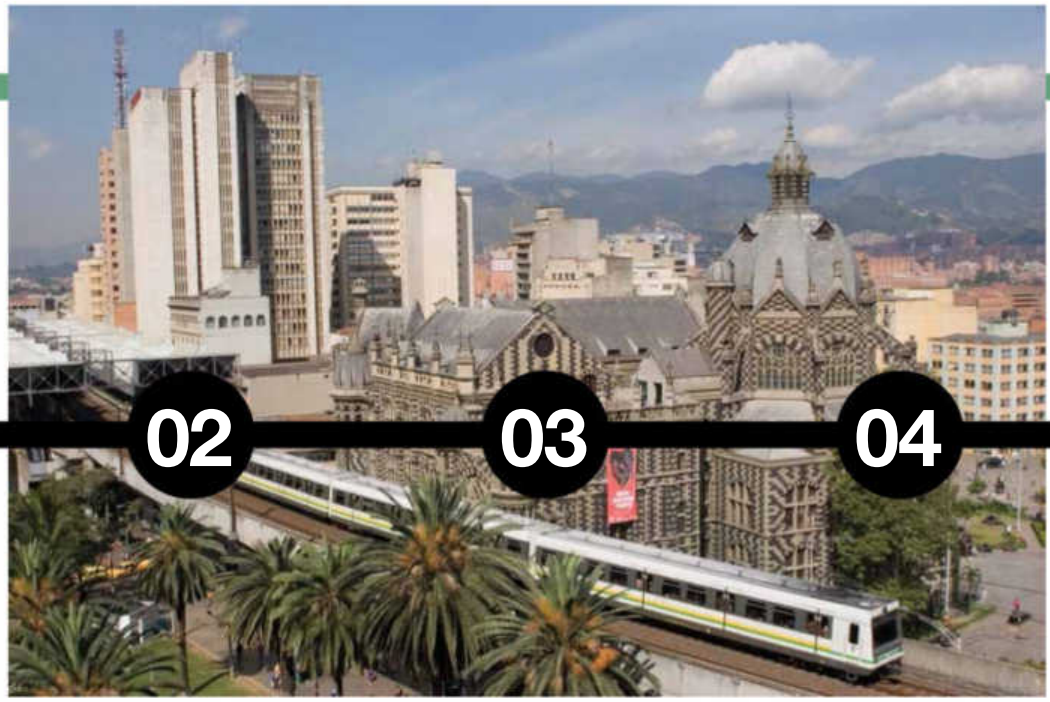
Cities around the world and throughout history have always had to face complex and often unpredictable challenges. Economic crisis, natural disaster, political turmoil, geographic vulnerabilities, embargoes – the list goes on – can generate true and sometimes unrecoverable pandemonium. If those living in cities in their golden ages feel that prosperity is impermeable and eternal, those living in intense crisis see the problems as permanent and hopeless. Nonetheless, despite how insurmountable the problems may seem, some cities still find ways rise above and build for better days ahead.

Colombia's beautiful Medellín is one of these cities, going from murder capital of the world – with a murder rate of 380 per 100,000 in 1991 – to winning the *Wall Street Journal*'s prestigious title of "Innovative City of the Year" in 2012 – and a murder rate of only 26.8 in 2013. This impressive two-decade turnaround sheds light on some important lessons that leaders facing seemingly daunting challenges can learn from.

A Grim Landscape

Like most complex problems faced by cities and organizations, many factors contributed to Medellín's critical condition in the 1990s. The city had doubled in size between 1970 and 1990 with no sound policy for housing. A lack of decentralization in all areas including health, education, and police force made for an extremely weakened local government as the city went through 49 president-appointed mayors between 1948 and 1988. Further, the city sits in a valley atop of the Andes, the world's only region suitable for growing coca and close to the Pacific and Atlantic coasts, making it ideal for several types of illegal contraband.

With a rise in demand for cocaine in the 1970s and a dwindling textile production as a result of Asia's increase in productivity, politicians, and businesses alike benefited from this highly profitable industry, blurring the lines between legal and illegal. However, the sheer amount of illegal money coming in led to the consolidation of drug cartels, which began to monopolize territories and transform poverty-ridden communities into ganglands. Left-wing guerrillas and the unforgiving para-military anti-guerrilla movements added a layer of political turmoil and violence to the city in crisis. The unfortunate result of this deadly concoction of factors was a total of 6,349 killings in 1991 and a lawless city where any attempt of resistance was met with ruthless violence. Such a multi-faceted and chaotic context begs the question if recovery is even possible. Fortunately, Medellín's story evolution provides insight on resilience, engagement, and action for going through tough times.



01 02 03 04

Engaging the right multidisciplinary team prior to defining a strategy

At a time when the country faced utter chaos, instead of defining a grand vision for moving forward and then attempting to enlist the right stakeholders, Colombian leaders built a team from different sectors first to draft a new constitution in 1991. This kept the process balanced, ensuring that all voices were heard and that the new guiding principles that would move the country forward were citizen-oriented, fostered decentralization, and prioritized accountability. Further, this diverse team provided depth to their perspective on issues and allowed the constitution to holistically reflect the context and complexities of those who lived and breathed them.

Enlisting bold leaders with a long-term vision

A newly decentralized constitution gave mayors actual power over health, education, and safety: factors they previously had to rely on the national government for. Finding truly empowering capable leaders who are close to the realities they need to solve, though easier said than done, usually pays off by bringing more ownership and accountability. Furthermore, it allows for solutions that are in touch with local communities. Medellín saw competent mayors who defended solutions that were unpopular in the short-term – such as the cable cars that gave access to the city's most destitute slums – but that aligned with an inclusive long-term vision for the city.

Designing solutions with the end-user in mind

Many leaders, in cities and organizations alike, can overlook the benefits of being close to the people whose problems they are solving, leading to solutions that are often incongruent with the necessities of those they are designed for. Part of Medellín's turnaround in recent decades can be attributed to its increasingly citizen-centric method, whereby civic leaders and citizens are engaged in open conversations to understand their needs, which are then addressed in the design process. This legacy of citizen participation as a tool for reducing inequality and violence has prevailed with Medellín's current Mayor, Aníbal Gaviria Correa. Through a practice he calls pedagogical urbanism, Correa works to build citizenship by reclaiming public spaces that foster equality and engaging citizens through education and training.

Acting on pain points with a flexible mindset

A serious crisis often presents many different challenges for leaders to address. Clearly defining the most critical points to act upon can make a daunting crisis more manageable and allows for scarce resources to be invested where they will have the most impact. Sergio Fajardo, Medellín's first government official to have control of local education, spearheaded the city's first few "integrated urban projects," which were tested in two of the city's most destitute slums according to socioeconomic data. Aside from starting by targeting a small region, Fajardo also focused on education as a priority and addressed this complex issue holistically by not only building schools and libraries, but also training teachers, structuring university liaisons, and incorporating elements that foster citizenship into the curriculum. ////

Marina Andreazi is a psychologist and the director of Idea Couture Brazil. She is based in São Paulo, Brazil.



Tackling the Crisis of Political Faith with Citizen-Centered Design

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More and more, companies are realizing the absolute need and value of putting people first in order to succeed as a business.
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BY COURTNEY LAWRENCE

Despite today's age of connectivity, participatory digital communities, and online knowledge sharing, political dialogue and engagement remain bleak. As populations of individuals witness the introduction of radical anti-terrorism bills, the passing of detrimental environmental policies, or continual human rights violations, yet choose not to engage directly with politicians and political structures, a deeper challenge emerges.

In countries spanning the globe, voter turnout is at a shocking low. In the last midterm election in the US, only 36.4% of people voted: the lowest it's been in any election cycle since World War II. In the UK, a recent Hansard Society study indicated that just 12% of young people plan to vote in the 2015 general election. To explore this issue, a *Guardian*/ICM poll found that 47% of respondents said they were "angry" with politicians and 64% said they don't believe what politicians say. When the popularity of YouTube videos of dancing cats outweigh critical political dialogue, it's time to realize we are facing a crisis of political faith.

How might we leverage a citizen-centered lens to solve for the political engagement crisis? In what ways could politicians learn from their citizens and serve their populations with greater empathy?

In the world of design thinking, consumer-centered marketing, human-centered design, and patient-centered solutions are household phrases. More and more, companies are realizing the absolute need and value of putting people first in order to succeed as a business. In understanding human emotions, behaviors, and desires, brands unlock infinite opportunities to deliver meaningful products and services while generating greater revenue.

PHOTOS: ROBERT KENNEDY AND ALF MELIN

01

Strong brands have clear purpose.

Brands that have some of the highest levels of consumer engagement are those that have a clear purpose and succinct articulation of that purpose. Essentially, they know their "why." Simon Sinek, leadership expert and author of bestseller *Start With Why* has a powerful message about the significance of not expressing what you offer as a company or how you offer it – rather, why you offer it, or why you exist as a company. It is this spark and core belief in why you do what you do as an organization that generates loyalty from within and without. To sell their products and services, Apple does not claim to make really great computers that are beautifully designed and easy to use. Instead, Apple says, "Everything we do, we believe in challenging the status quo and we believe in thinking differently. The way we do that is by making our products beautifully designed, simple to use, and user friendly. We just happen to make really great computers."

In applying this to politics, parties need to help their citizens understand their core *why*. We need a clear articulation of – at the foundational level – what differentiates one party's purpose from another. Why are the people in those parties are so deeply committed to doing what they do? The *why* will invigorate and energize people both within and outside of the party to also believe in that shared purpose.



02

Consumers buy experiences, not commodities.

Millennial research shows that Gen Yers engage most highly with brands that offer experiential products or services. The experience of being inside a store or a restaurant – its interior design, ambiance, demeanor of staff – is just as important as the products sold or the meal served. According to the 2014 Brand Keys Loyalty Leaders List, traditional retail brands were down 50% last year in part because of their inability to provide meaningful differentiation beyond low pricing strategies. When a company can deliver additional value beyond just the product or service through wrap-around experiences, they have a higher likelihood of sticking around. This means putting effort into understanding customers and delivering interesting events or memorable moments that fit into the context of those customers' lives.

The hit Disney TV show *Dr. McStuffin*, about a six year-old girl who heals toys, used experiential marketing to promote the upcoming second series and increase merchandise sales. Disney recreated Doc's clinic in Tesco, Smyths, and Toys R Us in the UK, where kids were given a 10-minute immersive experience taking on the role of Doc and diagnosing Big Ted, a large stuffed bear. The experience allowed the children to play with the merchandise in a creative way and resulted in a 5.3% increase in the propensity to buy merchandise.

For political parties to have lasting value and gain the support of citizens, the focus must move beyond selling platforms or policies – they need to engage with their citizens in a meaningful way. For example, outside of speeches or conventions where only a small proportion of existing advocates attend, how might they find the spaces and places where their people are, and deliver a memorable experience there?

03



Brand loyalty is driven by emotional engagement.

The paradox of choice means that consumers can no longer make decisions purely based on functional or rational criteria. We are far too inundated with content and data on a day-to-day basis to sift through hundreds of shampoos on the shelf, selecting purely by ingredient list. A recent piece by Forbes ("Which Brands Have the Most Loyal Customers") cited customers to be "looking harder for a reason to believe and a reason to engage with – and buy – one brand versus a myriad of 'me-too' products." The brands that grab the attention of their consumers make a compelling story with an emotional narrative that consumers can connect to. Dove, for example, is a master at storytelling, as seen in the launch of its Real Beauty campaigns that speak to how women truly feel about their bodies and provide open conversations through short films, workshops, and events about what beautiful means. Through this, Dove has shown that it cares about understanding what's important to its consumers.

While political parties don't have to fight with hundreds of competing brands, they do have to differentiate their policies in a way that citizens can emotionally resonate with. It's far too overwhelming to skim through and objectively assess each party's policies and platform differences. Instead, parties would benefit from focusing on developing a strong emotional reason to believe. To create that hook, they need to know who their audience is, and what that audience values and needs. Generating a compelling story and emotional narrative that speaks to citizens as human beings – not voters – could go a long way.

04

The best brands create dialogue, not one-way conversations.

As traditional 20th century hierarchical power structures dissolve, emerging generations demand that those in positions of power – both perceived or real – open themselves up to engaging in real, honest conversations. Younger consumers are distrusting of companies and brands with only one-way communication channels. This generation has grown up with the expectation that they have a right to speak, express ideas, and ask questions no matter whom they are with and who they are.

As a result of the increasing expectations of honesty and openness, companies who are transparent and don't assume to be the expert serve their consumers much better than those who "sell down" or preach. With over 5.8 million followers and over 8,000 tweets, Virgin Mobile's iconic CEO, Richard Branson, is a prime example of how to create conversation and connection with your audience.

The political parties and leaders who dilute the aura of inaccessibility or superiority in order to meaningfully engaging with citizens in a conversational way are well set up for success. For example, the playful use of hashtags during campaigns can be a way to connect instead of focusing on the opposition and blaming or putting them down. For politicians, successful connection means making information simple to understand. The right voice and tone speaks to citizens in a way that is neither patronizing nor demeaning – instead, inviting, approachable, and professional.

05

Consumers can sense dysfunction and therefore crave cohesion.

As highly sensual and intuitive beings, we can often sense when a group, community, or organization is not functioning well or are being dishonest. When a story leaks that a CEO does not treat his employees well, or that there are internal conflicts within a company, consumers find out and will shop elsewhere. CEO of BAV Consulting John Gerzema says, "Transparency, honesty, kindness, good stewardship, and even humor, work in businesses at all times." As a rule of thumb, humans have a natural tendency to want to support and cultivate cooperation. We prefer to engage with and put our trust in strong, cohesive teams that we know will work together to win, rather than a team that has the risk of falling apart due to internal disharmony or because of dishonesty.

Historically, politics has been riddled with stereotypes and stories of drama and dysfunction. Many citizens have the impression that parties and their politicians play games and are not internally aligned. On a macro-level, seeing campaigns that put down or blame the other team are contrary to this desire for cohesion. Additionally, seeing a scandal about a politician's expense claims can cause citizens to question the integrity of the party. The result is an image that leads to distrust. Working on internal party culture, aligning on purpose, and adopting a more cooperative approach are starting points to shift citizen perceptions and behaviors.

// **When the popularity of YouTube videos of dancing cats out-weigh critical political dialogue, it's time to realize we are facing a crisis of political faith.** //

There are definite opportunities to re-assess and re-design the way that political parties integrate and engage with their citizens to address the current crisis of faith. While parties can have the most interesting and novel ideas or policies in the world, without having the support of the people behind them, they will be ineffective in making any kind of sustainable or systemic change. ////

Courtney Lawrence is a senior resident anthropologist at Idea Couture. She is based in Toronto, Canada.



PHOTO: WILLIAM MURPHY

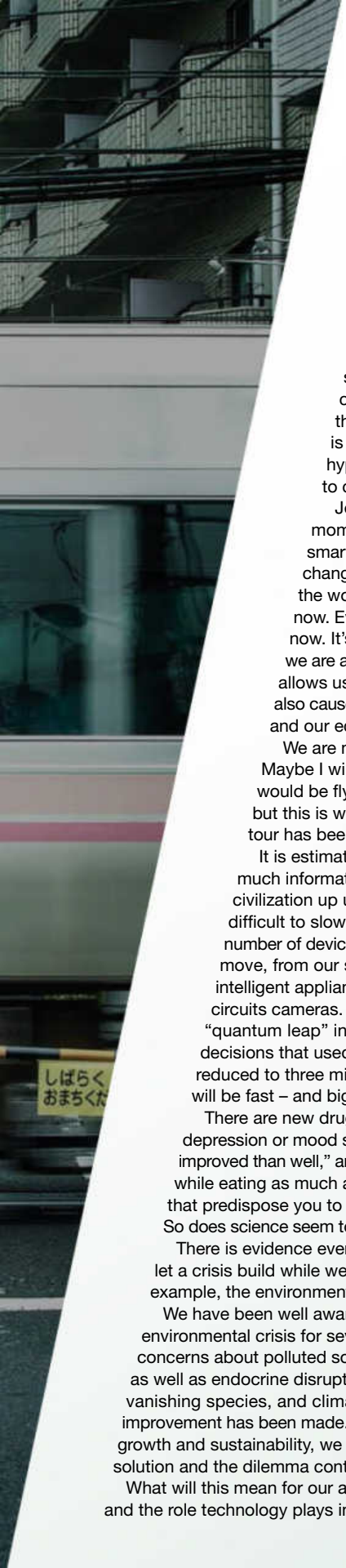

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Life in full view

Life in the Fast Lane

Is speed creating a crisis in our hyperlapsed economy?



PHOTO: SPINSTER CARDIGAN



BY IDRIS MOOTEE

An exposure technique used in time-lapse photography, hyperlapse shows a scene in fast pace that seems almost surreal – much like in everyday life, where we catch ourselves wondering where the day, month, or year has gone.

It's becoming apparent that the world is moving too fast. Although movements like slow-food have gained a lot of traction and there is talk about slow-science, we still need faster smartphones, faster cars, and speedier internet connections. It seems that the world is moving too fast. Technological change is taking us for a ride, and we find ourselves living a hyperlapsed life. Many believe that the world needs to come down into first or second gear.

Jet-setting around the world, instant Twitter moments, and the fact that we are getting a new smartphone every seven months is not going to change. We never thought we would be flying around the world several times a year, but this is our reality now. Even space touring has been science fiction until now. It's not an option to go back to a simpler life; we are always hungry for more. Our addiction to speed allows us to fulfill this need and have it all, but it also causes a lot of stress for individuals, organizations, and our ecosystem.

We are not designed for speed – not this speed. Maybe I will be proven wrong. We never thought we would be flying around the world a few times a year, but this is what we are doing every month. Space tour has been science fiction until now.

It is estimated that every 24 hours, we create as much information as we did from the dawn of civilization up until 2005. With big data, it becomes difficult to slow this statistic down with the sheer number of devices recording and transmitting our every move, from our smartphones and wearables to intelligent appliances, industrial sensors, and closed circuits cameras. This means that there is a real "quantum leap" in accelerating time-to-answer; decisions that used to take days and weeks are now reduced to three minutes. If we make mistakes, it will be fast – and big.

There are new drugs that are not dealing with depression or mood swings but making you "better or improved than well," and diets that help you lose weight while eating as much as you want, or even genes that predispose you to be primed for a job promotion. So does science seem to be moving a bit too "fast"?

There is evidence everywhere of our ability to let a crisis build while we sit idly by. Considering, for example, the environment.

We have been well aware of the dilemma of our environmental crisis for several decades, from concerns about polluted soil, air, plants, and water, as well as endocrine disruptors, ozone depletion, vanishing species, and climate change – yet little improvement has been made. Between economic growth and sustainability, we are yet to find a solution and the dilemma continues to confront us.

What will this mean for our accelerating world and the role technology plays in it? We can already see how technology is leading us down potentially dangerous paths. Computers are becoming the OS of humanity; decisions will be increasingly made by artificial intelligence. Elon Musk, the CEO of Tesla, has been the very vocal about the AI threat, calling it the "biggest existential threat" to mankind. Interestingly, he is an investor in DeepMind and Vicarious, two AI ventures, but, according to him, these investments are not to make money – they are for keeping an eye on what's going on. Whereas the short-term impact of AI depends on who sits behind the controls – as Musk is attempting to do – the long-term impact depends on whether it can be controlled at all.

Modern technology is also altering the way our minds work and even affecting our human identity, changing what defines each of us and challenging the notion of who we are, what do we, and how we behave and act. Imagine a scenario where we are essentially becoming superhuman: every day we wake up to a gadget-enabled, pharmaceutically-enhanced lifestyle surrounded by smart-living devices, our environment managed by algorithms to make sure everything is optimized and personalized for our preferences.

Today, we are allowing technologies to self-accelerate and develop rapidly. Computers are self-managed, with an algorithm being managed by yet another algorithm. New computer chips are immediately put to use developing the next generation of even more powerful ones. The same is happening to biotechnology, nanotechnology, and picotechnology – technologies that tend to accelerate one another. Now apply this logic to the development of synthetic biology: Computers are working round the clock mapping our DNA in the human genome, and now DNA is being explored as a medium for computation. We are on autopilot mode for speed, heading towards a potentially dangerous outcome, and we don't know when to hit the brakes.

We need a new type of leadership that spans across government, private, and public enterprises to solve the challenge of this unique historical moment to avoid a highly foreseeable future crisis. The most urgent task of our time is a redesign of humanity and the three forces needed for it to come to term: people, planet, and technology.

Technology has earned a seat in our future, and we need to use it to enhance human security – not make us more vulnerable. Engineers need to hard code ethics into technologies. We need to commit to green chemistry and stop investing in synthetic chemicals. We need to use mobile technology to reduce the education gaps between developed and developing nations. We need to master sustainable trade. In order to accomplish this, we have to slow down just a little.

Companies can certainly benefit from the idea of dolce far niente – the notion of doing nothing. They might be surprised at just how productive it can be. ////

Idris Mootee is the publisher and editor-in-chief of MISC and CEO of Idea Couture. He spends his time between London, New York, San Francisco, and Shanghai.

Big Food Turns 65



And he's not even invited to his own retirement party.

ILLUSTRATION: JENNIFER BACKMAN

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The American organic food market skyrocketed from $8 billion in 2004 to $42 billion just ten years later.

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BY SCOTT FRIEDMANN
IN COLLABORATION WITH CAROLINE LEUNG

If you were a child in the 1990s, chances are, you've had a Dino Buddy. Perusing the frozen aisles of your local Costco, you can still spot its signature vitamin-C orange box today: its crisped golden insides proffered by some friendly-looking stegosauruses.

My father invented the Dino Buddy, merging our fascination with both long-since-extinct animals and today's most popular animal-based protein, the chicken. In addition to its quirky mascots, Dino Buddies were also known for their relatively clean ingredient profile at the time; 100% breast meat with no fillers, unless you count the imaginative play that invaded every meal. As a child I played guinea pig to his creations, later graduating to the manufacturing line as a teenager.

Food looked, felt, tasted different then. Its best-known brands were like another family member. Heinz was the crowd-pleasing uncle, smoothing over any ruffles caused by the not-so-beloved meat loaf. Kellogg's was the cousin who you could talk about *Star Trek* with; the one you listened to instead of your mom about the importance of a healthy breakfast. Big Food contributed plenty to yesterday's portrait of the nuclear family. Today, they're better known for their role in rising statistics of obesity, heart disease, and diabetes.

It's true that over the past decade, the people have put their foot down and spoken. They want healthier products, the trans fats nixed, the bloated ingredient list to undergo gastric bypass. This is reflected in where people shop, in addition to what they eat: Whole Foods, despite being founded in 1978, jumped from operating fewer than 200 stores in 2006 to the 440 locations today. With healthier stores came healthier food brands such as Annie's and Wild Harvest, though Big Food still controlled the center aisles of the grocery store, which remained very profitable for both the brands and the grocery retailers they supplied.

Fast forward to the end of the 2000s. Grocery store profits are now orbiting away from the center of the store and into its perimeter: meats, dairy, juices, fruits, and prepared foods, everything fresh. The American organic food market skyrocketed from $8 billion in 2004 to $42 billion just ten years later. Though the wheels were already in motion, in the past 24 months, what was a slow descent into consumer indifference – alongside irrelevance, even hostility – has graduated to an outright free-fall.

How'd that happen?

Anyone can start a food company today.

The rise of the co-packing (or co-manufacturing) industry allows almost anyone to become an edibles entrepreneur. . This shift began when grocery retailers created a series of brands to boost margins and improve the store experience: Loblaws' President's Choice, Safeway's Basic Red, and Target's Archer Farms. Trader Joe's and Costco's Kirkland Brand, in particular, have on their own created hundreds of new food companies that serve to manufacture for others rather than under their own brand. This meant industry neophytes could simply go to these co-manufacturers to produce almost anything. Especially for the burgeoning health food idealist, this was an advantage, aligning perfectly with millennial health consciousness. Big Food brands, which were an iconic part of life for the parents and grandparents of this generation, began to sink into cultural irrelevance as their product and flavor profiles stagnated. No longer able to bank on their statuses as family staples, brands like Maxwell House, Kraft Singles, and Kellogg's Frosted Flakes began to give way to their hipper, often healthier, more premium and contemporary counterparts.

Labels are cleaning themselves up and diversifying.

The standards for cultural relevance are shifting from family values to serving today's lone, health-conscious millennial wolf. As of 2015, we are experiencing the first decline in American caloric intake since peaking in 2003. Rising nutritional literacy has, in turn, made consumers more reluctant to keep reading. The shorter the ingredient list, the better the product is perceived in quality. As grocery store profits shifted towards the fresher perimeters, and variety became more important, even big box stores have jumped on the private organic label bandwagon, such as Walmart's Wild Oats.

Food media now dominates the mainstream.

As permeation on the collective cultural consciousness goes, there's no surer sign than reality television – more than any blog, magazine, podcast, or talk show. Having reached peak *Chopped*, the average consumer is now openly embracing experimentation. Food media inspires consumers to explore international flavors, showcased the potential of hacking and tinkering with preparation and presentation, and enlightened them to what is and isn't healthy. When coupled with the rise in health consciousness, superfoods and healthier ingredients such as chia seeds are now enthused over, contextualized as appetizingly as possible by way of Instagram filters and cute hashtags. Those markets often start out small and skyrocket in popularity seemingly overnight. In such, they prove to be an impossible nut to crack for Big Food, who have never been on time for any trend, and whose brand of wholesomeness has always been more figurative than literal.

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It's the M&A equivalent of a face-lift: a painfully obvious pursuit of youth, and a fleeting stopgap at that.

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Major players are consolidating, and fast.

If Big Food can't beat the independents, join them by buying them out. Aligning with Campbell's swift acquisitions of its healthier competitors (Bolthouse, Plum Organics, and Garden Fresh Gourmet), General Mills purchased Annie's for a surprising $820 million despite sales of only $204 million in 2013. It's the M&A equivalent of a face-lift: a painfully obvious pursuit of youth, and a fleeting stopgap at that. And as the rest of the body ages, for how long can this new face fare? How compatible can the parent organization be with the youthful independent?

Big Food can try and tinker with all sorts of other measures: buying early, or later; shoehorn purchased relevance into their tiring brand values, or absorb their younger competitors without fanfare. Even so, the realities of consolidation remain. Newly moneyed founders move on. Cultures clash in the boardroom. Corporate constraints prove to be irreconcilable.

Thanks to various fairy tale successes, capital is now easier than ever to acquire.

Ten years ago, any edible startup would've been laughed out of most Silicon Valley venture capital firms. However, low interest rates and high evaluation buyouts have resulted in increasingly large pools of capital searching for a home, funding the recent interest in food and beverage startups. Growing competition among the Thiels and Andreessens of the Valley also required more out-of-the-box thinking in order to set themselves apart. The answer? Next-generation food companies, further enabled by the rise of co-manufacturers.

Thanks to the progression of food technology, the definition of "organic" is now a spectrum that has on one end farm-to-table purity, and on the other, lab-grown products that defies nature as we'd known it for centuries. The eggless Just Mayo is only one part of an overarching "better-food" movement: propelled not by a food manufacturer but the big data company Hampton Creek, focusing on plant genetics. Products like Soylent tout themselves as the drinkable meal of our future. Another example includes Beyond Meat, a startup behind plant-based meat that employs soy as a primary ingredient. This timely marriage of technology and food has breathed new life into other types of media as well: Suddenly, publications such as *Fast Company* and Wired now have a more broadly appealing vertical to wax their speculation.

With the confluence of so many factors working against Big Food, options seem limited.

New organic revenue can't replace lost revenue from their core products quickly enough. Companies are expensive to buy. Sure, multiples are lifted and share prices are increased – but due to major consolidation measures, and not increased profits or better innovation efforts. They can try their hardest to innovate, but it's nearly impossible to do so without any cultural cachet.

In many ways, the demise of Big Food mirrors the existential plight of today's baby boomers. Food culture has diverged too readily from traditional Big Food, painting any attempt at brand renovation or the creation of millennial-centric brands as alienating or futile. And even when they manage to get a younger, hipper brand in their corner and there's little to do but leave them alone, it's hard to incorporate their cultural and product development sensibilities. When Big Food buys an independent, how much of it does it integrate? And if it does, will they kill it?

The company behind Dino Buddies was sold to a private equity firm; a decision made by the belief that Big Food was changing. Ironically, the deal closed while my father was in ICU, as sick as the industry itself.

Eventually he recovered, and rediscovered food in a healthier context, experimenting with juices, vegetarian diets, and alternate proteins in a time when wheatgrass shots and raw cuisine were still a sitcom gag, even on cable television. Retirement and recovery drove him to try making pasta out of organic lentils and other pulses, an experiment brought to mass-manufactured life due to demand by large retailers looking for something new to reinvigorate the pasta aisle, and appeal to paleo sensibilities. At the age of 65, he's accidentally started a new food company that is the complete antithesis of his original company.

Inspiring as his success is, it's a story of reinvention – or reincarnation, if we're to stick with the corporeal metaphor. The measures Big Food are resorting to in order to cope with this crisis are, in essence, only borrowed time. Since its inception 65 years ago, Big Food companies have been, to some extent, susceptible to the same forces that have plagued equally large sectors such as technology: Yahoo!, AltaVista, and Netscape were, too, dominating brands once upon a time. Although lacking in major growth, it was once assumed that Big Food will always survive because people need to eat. But people are no longer eating just whatever the hand feeds them. Kellogg's launched the Special K campaign in 2003 to much fanfare. Now it's a ghost because of cereal's fall off the bandwagon in favor of protein-centric breakfast choices like Chobani. Even Soylent is more appealing than a colorless Froot Loop.

Perhaps it's time for Big Food to shrug and resign itself to irrelevance. There is no comeback story without hitting rock bottom, no rebirth without death. Meanwhile, the young guns are taking notes: In 2016, Whole Foods plans to pilot 365, its more affordable chain targeting Trader Joe's frequenters. If there's one lesson millennials – and the new food companies – have learned from Big Food baby boomers, it's that no one is exempt from the fickle tastes of today's consumers. Least of all themselves. ////

Scott Friedmann is chief innovation officer, EVP at Idea Couture. He is based in Toronto, Canada.

Caroline Leung is the editor of MISC *and a writer at Idea Couture. She is based in Toronto, Canada.*


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LIFE CAN BE PERFECT

In the World of Startups, "Crisis" is a Nonexistent Concept



BY JARAAD MOOTEE

For the individual, the word "crisis" has bad connotations. A crisis insinuates a severe situation to the company where the failure to execute a Hail Mary strategy could cause critical repercussions. It's a scary word for executives, an instant reminder of mergers and pink slips. Visions of stalled projects, roadblocks, a tightening of the purse. At best, it is working on weekends. At worst, it is a critical loss of faith. For startups, a crisis is different.

A startup is constantly faced with crisis – perhaps bad or good, but always everyday. The job of an entrepreneur is to manage crisis. For them, the onslaught of crises started on day one. VCs are paying them to define and manage crisis. Solving industry or technological problems is what startups do, and they're always looking for the next crisis.

So what can Fortune 500 executives and managers learn from startups in managing crisis? Take Uber as an example. It redefines transportation by using a new business model to deliver a compelling customer value proposition. Its business model is zero inventory, high volume transaction, and high margin and low cost viral marketing.

To the audience of digital innovation conference LeWeb Paris in 2014, Uber's founder and CEO Travis Kalanick explains Uber as an intersection of lifestyle and logistics. Uber is simple: a two sided-marketplace where they do not need their own inventory, warehouses, distribution centers, or the overhead required by most traditional business models. Uber is starting a business and expecting a crisis to happen everyday. It is disrupting taxi business models, city taxes, and traffic. If Uber was a project within a large corporation, it would never have gotten anywhere as its problems are unsolvable and too high-risk for corporations. Corporations know the business model would encounter some serious critical problems; it is only a matter of time. But for startups like Uber, they don't see it as a crisis because it's simply part of the startup journey. At this time of writing, Uber is locked in a bloody war with the city of Paris managing marauding taxi protesters. There is bureaucracy and red-tape everywhere, with regulations across protesting cities that require Uber to wait for an additional 15 minutes before picking up passengers.

And when taxi drivers lose their jobs, licensors and businesses are losing money, and it looks to be quickly getting worse – there will be backlash. Uber is facing bans from several cities, states,

PHOTO: UBER



and countries. Portland, San Antonio, and Panama City beach has forced Uber to suspend operations whereas it continues to operate in India, South Africa, and Australia regardless of its total ban. Angry taxi drivers in France have taken to bridges and dropping cinderblocks onto suspected Uber cars. Is this a crisis? Definitely. However, Uber solves an unmet need. By pushing forward, they are able to provide an equally beneficial relationship between its users and providers.

To combat the latest crisis, Uber launched UberPOP, a low-cost, ride-as-a-service, no-training-required, fast service. They see crisis as an opportunity. They are not afraid to disrupt someone else's business flow, pushing the regulatory boundaries, or upsetting unions. Kalanick isn't shy about it all, referring to his many "cease-and-desist" letters as his preferred office wall art. Professional managers might see them as professional nightmares, but this is not the case for a startup.

Another good illustration, Airbnb created a system which shakes the steep hotel prices by offering crowdsourced rooms and beds to rent. From its very beginning as a business, it was a crisis in the making. It is not difficult to imagine some owners returning to find their houses trashed, ransacked, robbed, demolished. There were many horror scenarios, but the start-up marched forward. Hotel owners began to panic at the possibility of every home being utilized as a room for travelers and guests. The popular "marketplace for spaces" just raised $112 million in funding from Andreessen Horowitz, DST Global, and General Catalyst. Amazon founder Jeff Bezos valued the once-struggling company at an crazy $1.3 billion. This valuation is already discounted with the crisis that is almost inevitable. Are they crazy? Is this business viable, let alone valuable? Investors invest in Airbnb for them to solve these crises in the making. It's their job. Sure, there were instances of users reporting their house as ransacked, trashed, and even burned. However, Airbnb CEO Brian Cheskey and his team responded immediately in the form of a million-dollar insurance policy, deemed the Host Guarantee.

So how do start-ups like Airbnb or Uber handle crisis?

01

Crisis means agile bulletproofing.

They can use every opportunity to bulletproof the business more. By teaching its users better ways to keep themselves and their properties safe, Airbnb understands how important is to educate buyers and sellers. The system is constantly improving in an agile fashion. In large companies, people will hide their problems and avoid people who are asking, "whose fault is it and how couldn't we anticipate this?" Startups don't ask these questions.

02

Leaders need to take charge.

Founders or co-founders need to directly handle crisis situations. In larger corporations, the head PR or Chief Counsel will take care of it. But by having senior people dealing with the situation, they can see the "why" and will think about the "how" to avoid it. Founders act as Chief Customer Experience Officers in the world of startups. They understand the concept of putting the customer first. Startups don't hide behind corner offices.

03

Take your fight to social.

As Uber continues to push its car service into new cities, the company has become accustomed to fighting legal battles. There will be no end to this. In addition, these fights are already being taken to the digital street – social media – and the world will decide the best outcome, which will influence policy making. Instead of hiring expensive lobbyists and campaigns, startups take it straight to Twitter and Facebook to make their case.

Could this dismissal – even embrace – of crisis be a generational mindset? Growing up in the age of Y2K, 9/11 and its ensuing decade-long war, the bursting of the housing bubble, Edward Snowden, the list goes on – it's no wonder we are used to being perpetually on the edge. This is reflected in the nature of our generation's entrepreneurs and businesses. They don't know the word crisis and if they do, they see it very differently. They aren't content with the current state of the world, including how businesses are continually running bloated business models.

As ambitious idealists, we may not know anything about a grand vision. But we seem to be particularly good at creating companies to start upsetting the norm and creating crisis for companies and industries in the form of disruption. Call it naïveté, but it is this belief in our own power to disrupt that allows us to do what we do. ////

Jaraad Mootee is a technology trends analyst at Idea Couture. He is based in Toronto, Canada.

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Founders act as Chief Customer Experience Officers in the world of startups. They understand the concept of putting the customer first. Startups don't hide behind corner offices.
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Crowdsourcing for Crises

BY MELISSA HUANG

The crowdsourcing manifesto is akin to the adage “we have power in numbers.” From Wikipedia to Amazon’s Mechanical Turk, Stack OverFlow to Kickstarter, it is evident that the collective power within our communities is something to be reckoned with. What is even more incredible is that these platforms represent crowdsourcing in its infancy.

Throughout the past decade the taxonomy of crowdsourcing has begun to materialize. Daren C. Brabham, an early thought leader for crowdsourcing, outlined the four problem-based typologies that we see here:

01
Knowledge Discovery & Management

For information management problems where an organization mobilizes a crowd to find and assemble information. Ideal for creating collective resources.

02
Distributed Human Intelligence Tasking

For information management problems where an organization has a set of information in hand and mobilizes a crowd to process or analyze the information. Ideal for processing large data sets that computers cannot easily perform.

03
Broadcast Searches

For ideation problems where an organization mobilizes a crowd to come up with a solution to a problem that has an objective, provable right answer. Ideal for scientific problem solving.

04
Peer-Vetted Creative Production

For ideation problems where an organization mobilizes a crowd to come up with a solution to a problem which has an answer that is subjective or dependent on public support. Ideal for design, aesthetic, or policy problems.



// **Citizen participation will vastly improve the prevention and management of crises currently handled by mere broadcast messaging from officials.** //

We can view these four typologies as fundamentals that lay the foundation for interpreting more complex problems. Thus far, the influence of crowdsourcing is prevalent in content amalgamation, economic production, and the emergence of new business models. However, we are ready to move beyond these proofs of concept to accomplish goals that are more ambitious in nature.

When we apply the problem-solving approaches that are rooted in Knowledge Discovery & Management and Peer-Vetted Creative Production typologies, we develop a function that augments the already powerful crowdsourcing tool for the likes of crisis management: crowdfeeding, the process of crowdsourcing information and feeding the information back to that same crowd, to create an efficient market place for crisis response. Citizen participation, be it via online or physical channels in crisis response, will vastly improve the prevention and management of crises currently handled by mere broadcast messaging from officials.

Consider these two case studies.

External Crisis

Ushahadi – Snowmageddon to Natural Disasters

Ushahadi is a global organization that helps people to make smart decisions with a data management system that collects data from the crowd and visualizes what happened, when, and where. Snowmageddon is the first deployment of a service that not only enabled affected residents to map their needs during the DC 2010 snowstorms, but also enabled those less affected to map how they can help. When you extrapolate this technology to that of a natural disaster, like Hurricane Katrina, or forest fires in Russia, crisis response extends from the hands of professionals into those of the community affected, who are in fact, the true first responders.

Internal Crisis

Panoply – The Plague of Mental Health

Depression is a debilitating and costly illness. Stigma or discrimination attached to mental illnesses presents a serious barrier, not only to diagnosis and treatment, but also to societal acceptance.

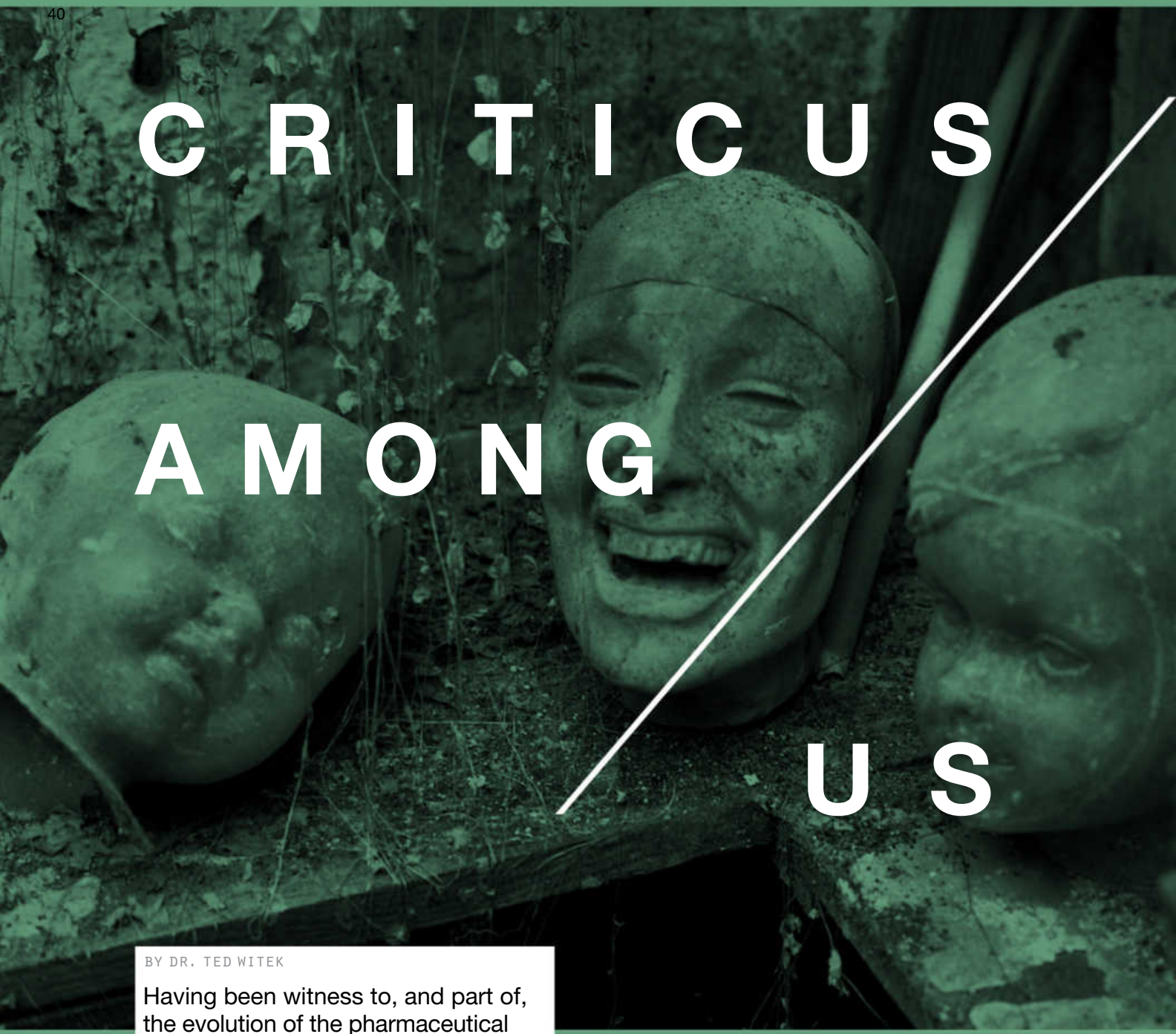
Panoply is a crowdsourced peer-to-peer cognitive reappraisal platform for depression. Peer support is a cited therapy for reducing practical and emotional barriers that typically prevent depressed individuals from seeking traditional psychotherapy. Panoply does not rely on static, didactic content to teach therapeutic techniques. Rather, the platform is a dynamic, social, and interactive platform. Panoply users can post content, respond to others' posts, receive responses, and get feedback on how they are doing. These functions intertwine in such a way where engagement teaches users to learn to offer empathy, identify cognitive distortions, and then reframe or help others reframe negative situations that are more positive and adapted on the forum.

While we recognize that flatter communication structures are more effective, we have historically accepted the pervasive nature of top-down communication due to challenges in identifying mediums that could successfully allow for horizontal dialogue. For organizations, we have seen movements towards non-hierarchal management structures to fuel cross-functional collaboration. For disaster response and crises, we now hold crowdsourcing in our arsenal as a facilitation platform for crowdfeeding – a bottom-to-bottom, meshed communication system, representing information of the crowd, by the crowd, for the crowd.

Just as the engine spurred the onset of industrialization, crowdsourcing has the revolutionary power to change the world again. To date, we've seen impressive feats of collaboration that represent crowdsourcing in its adolescence. The adaptation of crowdfeeding will be our greatest feat yet; it is our best response to solving natural disasters and social crises. Our collective voices ring together, spreading information, solving problems, and most importantly helping each other when we need it most.

We can, and will be the change we wish to see. ////

Melissa Huang is an innovation strategist at Idea Couture. She is based in Toronto, Canada.

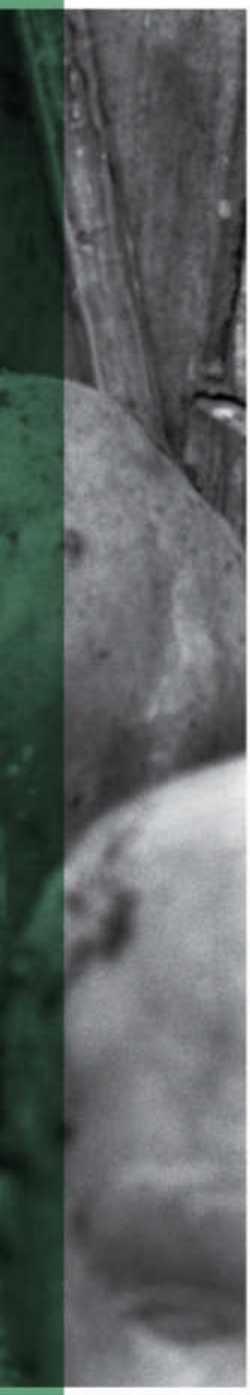


CRITICUS AMONG US

BY DR. TED WITEK

Having been witness to, and part of, the evolution of the pharmaceutical industry over the past three decades, my foremost thought is of our remarkable contribution to public health. This was achieved through leading science, an exemplary evolution of translational medicine, and a business model anchored in measured milestones, envious interdisciplinary collaboration, and creative scientific persuasion of end users.

PHOTO: DR. TED WITEK



Pharma Put the "Translation" Into Translational Research

It was a celebrated day when industry scientists Sir James Black, Gertrude Elion, and George Hitchings were awarded the 1988 Nobel Prize in Physiology or Medicine for their work in drug development. Drugs stemming from their work ranged from a variety of receptor blocking agents to therapies for such diseases as malaria, cancer, and a host of infections, all having a lasting impact on alleviating disability and disease. The development of the leukotriene blocker montelukast for asthma and rhinitis by Merck – within a decade of the 1982 Nobel Prize for describing the metabolism of substances liberated from cell membranes – is another. Then there is the central role of antiretroviral therapy and the associated decline in HIV/AIDS death rates. Truly remarkable. Finally, the role of education in conjunction with pharmacotherapy, such as the "know your numbers" cholesterol campaign, was a primary societal force in getting the masses knowing and acting on their lipid profile both through modified lifestyle and, when appropriate, statin therapy.

Equally acknowledged is the continued presence of skeptics who fear persuasion when not coming from within their walls, and refuse to recognize that industry commercial practices have demonstrated a remarkable change for the better. Not to debate further – there are tarnishes in every industry, including academics – but the overriding commitment to do good and improve public heath is balanced on the right side.

Have the Laurels Wilted?

Even if one agrees with my take on an industry that has done exceedingly good things, it may also foster the "that was then, and this is now" lament as we face very fresh and uncharted challenges. The evolution of focus from effectiveness to cost-effectiveness, and to an efficient system integration of pharmacotherapy, is putting unique stresses on current models.

Does the industry have the competencies to do the same good for optimal integration of innovation as they have for discovery and development? Will the industry practically recognize that premium costs without harvestable savings to systems are no longer sustainable? Can we handle success rates of less than 10% and development costs surpassing $2.5 billion in some estimates? Can we sustain declining projected peak sales of assets approaching 50%?

Navigating the Treacherous Path Ahead

This is beginning to sound very difficult, even dangerous – two words often associated with crisis. In fact, one does not have to read too long or surf too far to find critical, fact-filled essays on a pharma industry in turmoil: R&D crisis, innovation crisis, strategic crisis, productivity crisis, and so on. Admittedly, there is a bit of drama in the word "crisis," but difficulty and danger requiring attention is no overstatement.

There is no panacea to address the difficulties of the day, but as long as science prevails, our business will have opportunity. My thought, "if we could do just one thing," is to somehow capitalize on our mastery in bridging the first "valley of death" from science to drug and building a similar grand bridge over that second valley from drug to health. We need to make it our business to understand heath systems and organizations in such a way as to implement effective and efficient drug technologies. Sometimes, science even gets ahead of human behavior and organizational inertia, as seen in the timely testing of genetic mutations in the cancer patient journey. But integration must become the most critical milestone in the industry. Would some of the crisis mentioned above be less critical if this is addressed earlier and deliberated?

While I believe building a bridge over the second valley of death is crucial in implementing the impressive science that could lead us to better diagnosis and therapy, the first bridge needs its preventive maintenance as well. It would be both a crisis and a pity if we optimized implementation only to find discovery and development in trouble.

While pharma has been somewhat slow to navigate fresh seas, there may be some catalytic conversion from another stakeholder who often sets the rules: the government. The United States Congress has been introduced to The 21st Century Cures Act, which carries the tagline "Help and Hope to Patients Through Biomedical Innovation." That sounds a lot like the mission statement of most pharma firms. With a formal recognition of the difficulty we are speaking about, the act highlights areas of collaboration and coordination within biomedical ecosystems, patient perspective in drug development, modernizing clinical trials, removing regulatory uncertainties, and a host of mandates that demonstrate willingness to address difficulty before danger.

One caution in streamlining the process to preserve the good: Pharma and regulators will need to work hand-in-hand in evaluating the safety component of the risk-benefit ratio, remembering that the absence of evidence is not the evidence of absence.

The word "crisis" was Latinized from the Greek "criticus," which defined a turning point in a disease. In other words, cure or death. Let's hope discovery and development keep beating long enough for integration to come into normal range. ////

Dr. Ted Witek is a senior fellow at the Institute of Health Policy, Management, and Evaluation at the University of Toronto Dalla Lana School of Public Health, and senior vice president of corporate partnerships at Theravance. He is based in Toronto, Canada and San Francisco, United States.

the fall of the doctor & the rise of the nurse

BY JAMES AITA, DUSTIN JOHNSTON-JEWELL, AND ROBIN LOBB

Healthcare, and in turn the patient experience, is undergoing and will continue to undergo massive change. All healthcare ecosystem stakeholders are affected and their futures are in flux, raising questions, concerns, and a sense of uncertainty as new precedents and norms will need to be set. However, one factor has arisen to be certain. One stakeholder above all others – the patient – is shifting to the center of gravity around which all others' fates must be reconciled.

Shifting the patient to the center of the health ecosystem has changed long-held assumptions within the healthcare space, beginning with the doctor as the pinnacle of primary care. However, as patients gain influence and autonomy over their care and the healthcare ecosystems that surround them, the doctor's role as the central authority is diminishing. In their replacement are the patients themselves and their nurses, who are making up the difference in power and impact.

There are three main points of evidence – demographic shifts, the digital revolution as an enabler of change, and the changing cultural mindset for approaching healthcare – that act as signals and drivers of the current and impending prodigious reshaping of healthcare. In particular, in how they address the loss of power of the physician, and the gain in power of the nurse and patient.

Each of these factors is contributing in the changing dynamics of how health provision and support is operating, and razing long-held assumptions that have traditionally accompanied those operations.

Compelling questions arise. What could this mean for those living and working in health? What are the directions for the future, and ultimately, how should we consider the different approaches that will best take advantage of the opportunities that will emerge?

Demographic Shifts

As baby boomers age and apply increasing demand and pressure on the entire system's resources, we will need to do more with less, forcing innovation and efficiency.

Growing demand means less money.
An unprecedented amount of older adults will exert a significant demand on health systems. As the population ages, its demand on the healthcare industry will intensify, compounded by increasing chronic disease and longer average lifespans. In 2012, in the United States over half of adults lived with one or more chronic diseases and over 86% of healthcare spending was associated with caring for people with one or more chronic conditions. In turn, this will increase the cost of providing healthcare.

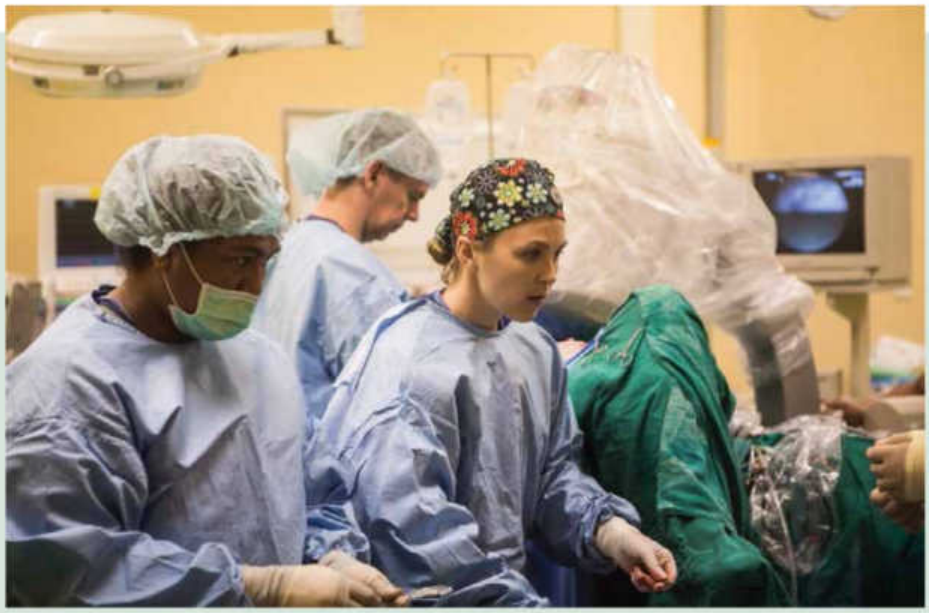
Innovation will be required.
To mitigate the increasing cost burden, health providers will be required to find efficiencies and innovate in order to maintain quality of care at a reduced rate. This will require changing long held practices, and trying new approaches for providing care.

Nurses take on some of the doctors' tasks.
One strategy that is being utilized to decrease costs is to provide nurses more power and influence in the treatment of patients by shifting the delivery of some services to nurses. In March 2015, Nebraska became the 20th state to adopt a law that allows nurses with advanced degrees to practice particular medical fields without a doctor's oversight. The law helps rural areas that have trouble recruiting physicians but have high healthcare need due to aging populations to still provide care through nurse practitioners.

Some doctor organizations, such as The American Medical Association, are opposing the law, arguing that nurses do not have the knowledge or skill to provide the required level of care.

PHOTO: DEPARTMENT OF FOREIGN AFFAIRS AND TRADE

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For certain forms of primary care, nurses are more cost efficient, providing better value to the healthcare system.
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However, the economics support the nurses. According to the Institute of Medicine, 14 nurse practitioners can be trained for the cost of a single physician, and research shows that primary care outcomes by nurse practitioners is equivalent to that of physicians. What this boils down to is the fact that for certain forms of primary care, nurses are more cost efficient, providing better value to the healthcare system. Eight other states are considering similar legislation, a trend that is sure to continue to meet the growing demand for health services.

While we are seeing a growing demand on funding being made by the ever-growing and longer-living older segment of the population whose needs are among the most expensive, we then begin to look at the segments of the population who are younger and for whom innovation will become even more imperative. These people will be dependent upon innovation – both of a technological nature and in terms of healthcare culture – for their healthcare needs to be effectively met. Innovate or die. Expect less quality of life or embark on more proactive and preventative demands upon the individual. It is within this mindset that we consider innovation both technologically and culturally.

The Digital Revolution

The democratization of information through the internet has provided power to the consumer like never before. File-sharing platforms, the MP3 format, and accessibility have forever reshaped the music industry. Television has also been drastically altered. The new platforms that now drive these industries have shifted control over content from providers to the consumer, permitting the consumer to choose what they want and when they want it, rather than being restricted to the provider's scheduling and bundling of products and services. As a result, the consumer is more engaged and in control of their consumption than ever before.

Technology is key to change in the patient/provider relationship.
Despite the differences of the content production context, its user analog to healthcare – the patient – is expecting similar change and with important implications. There is a similar shift of change and control away from providers and towards consumers, especially with increasing emphasis on patient centricity and engagement.

Patient engagement is big business.
Last year Apple released HealthKit, its software platform for collecting health application-related data from Apple mobile devices. Apple's foray into mobile health does not surprise as the industry's global revenue is expected to more than double from $10.2 billion to over $23 billion in 2015–2017. By providing a platform for developers in the space, Apple is investing heavily in the expectation that individuals will become more engaged and active in their personal health – and this is a safe bet. We all strive to achieve healthier lifestyles and make our own health decisions, both proactive and reactionary, and in so doing, we gain knowledge and become empowered to guide our own decisions.

Patient empowerment results in control moving from doctor to patient.
On the doorstep of the mHealth boom, we are on the verge of tremendous patient empowerment and engagement. With more information in their pockets, patients who once relied on the physician can now partake in a future in which they can make their own decisions, leaving the physician's role to a confirmation or opinion to be considered.



Cultural Mindset for Approaching Healthcare

As the power dynamics within healthcare shift, and the traditional role of the doctor loses it impact on patient care, the patient experience will become of increasing importance as a differentiator for health service.

Funding begins to be tied to patient experience.
The Affordable Care Act (ACA) became effective on March 23, 2010, bringing a significant regulatory overhaul to the US healthcare system. It was designed to increase quality and affordability of health insurance, lower uninsured rates, and reduce the cost of federal healthcare for individuals and government. Its intent was to reward hospitals that receive positive patient experience feedback through a series of surveys. Hospitals who wish to maintain or increase funding need to ensure that patients have a positive experience throughout their visits and interaction with the hospital staff.

Fundamentally, the patient's experience is driven by three key factors:

01

Patient's perception of the environment (everything from noise levels and aesthetic, to architectural design and flow of service)

02

Interaction with healthcare providers, hospital staff, and other hospital guests

03

Ability to have patient engagement

As training is more effective and less expensive than architectural overhauls, hospitals should be looking to improve patient experience through interaction and patient engagement: an option that is trained, not built. According to the ACA, patient engagement is "the active participation of patients and their families in the process of making medical decisions."

Outside of the hospital, mHealth is on the cusp of providing patient engagement through tracking, analysis, and the quantified self. However, this is only a fraction of a holistic engagement strategy. For healthcare providers, it is fundamental to ensure that patients receive a superior experience and engagement through interaction within the hospital, face-to-face with healthcare practitioners. Outside and inside the hospital, patient engagement is the path forward.

For this face-to-face engagement with patients, no role is more important than the nurse. Nurses spend more time with patients than any other healthcare provider and patient experience satisfaction is highly dependent on these interactions. Given this, nurses truly are the gatekeepers to patient engagement and ultimately the most fundamental factor in patient experience. Not only are nurses spending the most time with patients, that time is also highly valued. Year after year, Gallup polls have shown that nurses are the most trusted professionals in terms of both honesty and ethical standards, even more so than physicians. As nurses have been, are, and will increasingly be the cornerstone of the patient experience, what does this mean for the future of healthcare? At the least, it means patient engagement is bound to the rapidly evolving and expanding role of the nurse.

What now?

The Uberization of Healthcare
Akin to Uber's disruption of the taxi industry, this new epoch of empowered patients are beginning to have more access to their own health information, developing their own healthcare knowledge, and are beginning to act collaboratively and collectively using social media. Patients are able to curate their experience, noting and sharing the good and bad. As a result, they are working together to curate bad physician and hospital experiences out of existence – forcing them to react. The use of health and wellness technologies enables the beginning of a more proactive and preventative self-healthcare culture. One does wonder: If healthcare isn't exempt to this Uberization, can we expect the same types of shift in other sectors, such as law enforcement?

We once had societies in which healers were held singularly in the highest regard, but this is now evolving. The nurse will become a greater part of that healing process, as will the patient. We can expect that technology will be an enabler in this time of need for innovation, but it will be a challenge on both individual and societal levels as we adapt and take advantage of opportunities that will determine our success in the healthcare system of the future. ////

James Aita is the head of health delivery at Idea Couture in Toronto, Canada.

Dustin Johnston-Jewell is an innovation strategist at Idea Couture in Toronto, Canada.

Robin Lobb is the director at Zeroes and Ones Incorporated. He is based in Toronto, Canada.

PHOTO: DEPARTMENT OF FOREIGN AFFAIRS AND TRADE

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The ISIS Crisis: Foresight Fail?

BY WILL NOVOSEDLIK

In the past 24 months, we have witnessed the seemingly sudden and swift rise of one of the most sensationally brutal terrorist groups in human history. Perhaps not since the grandson of Genghis Khan sacked Baghdad in 1258 and ordered the mass murder of more than a million Muslims in a single week – all executed with knives, swords or bludgeons – has the world seen such crude, medieval slaughter.

We in the west are shocked, mystified, and disgusted by this. One minute we have eliminated the world's most wanted Jihadist, Osama Bin Laden; and the next minute, whack-a-mole style, a fiercer, more bloodthirsty, and more ruthless one rises, seemingly out of nowhere, to take his place.

We should not be surprised. In fact, on a closer examination of history, we should be asking ourselves: "How did we not see this coming? How did we miss the signals?"

There are many. How about we start with 1919? Few now disagree that the borders drawn and "nations" created by the Treaty of Versailles set the table for continued conflict. Based on a secret 1916 agreement called the Sykes-Picot, the fate of the Middle East was decided by three men: Woodrow Wilson, Georges Clemenceau, and David Lloyd George. They crafted an agreement designed to ring-fence French and English strategic business assets and relationships of influence – instead of local religious, historical, or cultural interests. It's no coincidence that ISIS leader Abu Bakr al-Baghdadi has pledged not to stop his advance until they "hit the last nail in the coffin of the Sykes-Picot conspiracy."

If that's too much of a stretch, we needn't go any further back than the decision to invade Iraq in 2003. If invading an already volatile region for no apparent reason and leaving it in even greater disarray after years of warfare isn't enough to inspire the emergence of bloodthirsty extremists, then what is?

This suggests that if the solution to any crisis lies in its roots, then perhaps in every solution lie the roots of another crisis. That should make it easy for us to apply foresight in situations like this. What if someone at Versailles had put up his hand and asked, "How might the remapping of the Middle East as a reflection of western business interests, without regard for local ethnic, religious and political divisions, undermine the stability and security of the region?" Or if someone had stood up to Don Cheney in 2003 and asked "How will the power vacuum created by toppling the Hussein government play out among the

various sectarian factions in the region, and what will that mean to the United States?"

It was philosopher George Santayana who said, "Those who cannot remember the past are condemned to repeat it." In this one sentence, by making the past and future two sides of the same coin, Santayana makes an argument for the value of disciplined foresight.

This binary relationship between memory and foresight is echoed in the Chinese meaning of the word "crisis." In Chinese, the word combines the characters for the words danger and opportunity. Hence the saying, "in every crisis lies an opportunity." If ever there were a poster boy for this notion, it is ISIS. Not only has it leveraged a power vacuum resulting from the historical intervention of western interests, but it has also taken advantage of the structural weaknesses created by competing local interests. Originally a part of Al-Qaeda, ISIS broke off in early 2014 over strategic differences. Rather than uniting civilians and other extremist groups in the region against the common enemy that is the west, the indiscriminately violent ISIS has the opportunity to redraw the regional map and is using a powerful mix of medieval torture and millennial technology to achieve it.

So how did we not see this coming?

Maybe it's that the "crisis in the Middle East" has been going on for so long, it's in danger of losing its "crisis" status. Bombings, assassinations, kidnappings, and the periodic eruption into war in one part of the Middle East or another has, indeed, been the norm for the last three generations. In this context, calling ISIS a crisis is a bit like calling the desert hot.

Or maybe it's generalized crisis fatigue: Our always-on networks ensure exposure to a steady stream of crises, from the catastrophic human trafficking story ("1,835 Die Attempting to Cross Mediterranean") to the catatonic supermarket tabloid story ("Ben and Jen Struggle to Save their Marriage").

It is not too late to apply some disciplined foresight to the situation. There is a monstrous murderer on the loose, and we should know that monster inside out. After all, we helped create it. Let's hope that in its creation lie the seeds of its demise. ////

Will Novosedlik is AVP, head of growth partnerships at Idea Couture. He is based in Toronto, Canada.



RISE OF THE PRECARIAT

Job Insecurity and the Changing Workforce

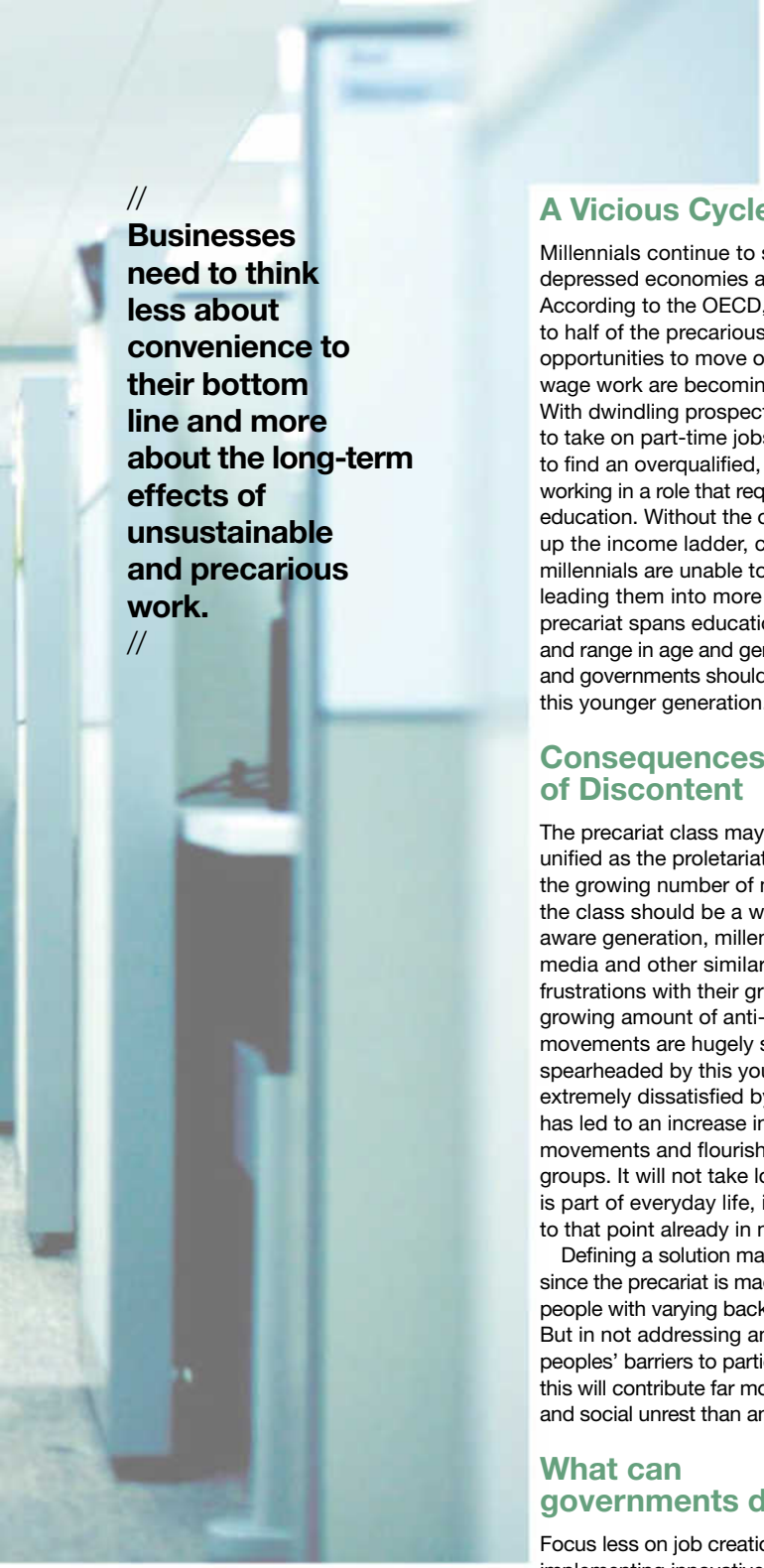


BY REBECCA MCKEAND

In 2011, British economist Guy Standing wrote about an emerging class in his book *The Precariat: The New Dangerous Class*: those unable to find permanent, full time employment with benefits and rights and instead have to take on precarious, temporary work offering no security. Encompassing many types of individuals from different lower to middle class backgrounds, this precarious "class," Standing argues, has been growing since the force of globalization sped up to an uncontrollable degree in the 1980s and the rise of neoliberalism. At that time, those left to precarious work generally fell into the traditional unskilled lower and working classes in more third world economies. Fast-forward to the 21st century, and you see the growth of a precarious workforce is found in many economies around the world.

Precarious work is on the rise due to depressed global economies, which lack the ability to create sustainable work for many seeking growth and income equality. Companies looking to make up for losses and manage decline are hiring contract or temporary workers at lower wages and offering little to no benefits or social security. Despite the fact that unemployment overall is declining in a number of countries and job growth continues, many economists argue that there is no denying that today's labor market is more unequal than generations before. And one of the hardest hit by this crisis is the very demographic many businesses aim to market their products to: millennials.

PHOTO: MARK SEBASTIAN



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Businesses need to think less about convenience to their bottom line and more about the long-term effects of unsustainable and precarious work.
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A Vicious Cycle

Millennials continue to suffer greatly from depressed economies around the world. According to the OECD, they make up close to half of the precarious workforce, and opportunities to move out of temporary low wage work are becoming increasingly scarce. With dwindling prospects, millennials are forced to take on part-time jobs. It is not unusual to find an overqualified, educated millennial working in a role that requires no post-secondary education. Without the opportunity to move up the income ladder, college educated millennials are unable to pay off student loans, leading them into more debt. While the precariat spans education and income levels and range in age and generation, businesses and governments should be most worried about this younger generation.

Consequences of Discontent

The precariat class may not be as united and unified as the proletariat in the 19th century, but the growing number of millennials making up the class should be a worrying trend. A socially aware generation, millennials utilize social media and other similar avenues to post their frustrations with their grim predicament. The growing amount of anti-austerity campaigns and movements are hugely supported and even spearheaded by this younger generation who are extremely dissatisfied by the status quo. This has led to an increase in youth-led progressive movements and flourishing extreme political groups. It will not take long before social unrest is part of everyday life, if it has not gotten to that point already in many parts of the world.

Defining a solution may be tough, particularly since the precariat is made up of a wide variety of people with varying backgrounds and means. But in not addressing an increasing number of peoples' barriers to participate in the economy, this will contribute far more to social fragmentation and social unrest than any other factor.

What can governments do?

Focus less on job creation and more on implementing innovative labor market policies that reform job protection rules, encourage businesses to prioritize incentivizing employees fairly, create an even split between regular and precarious work contracts, and improve job loss protection. Crack down on businesses that offer unpaid internships where workers have to work for free in order to gain experience or get their foot in the door of a company. Implement tax reform that favors investment in infrastructure and public services, rather than corporate tax cuts.

What can businesses do?

Put their reputation before their profit. This will probably cause protest by companies that are trying their best to remain afloat in a dismal economic environment, but they need to think less about convenience to their bottom line and more about the long-term effects of unsustainable and precarious work. Placing labor offshore may be a great short-term solution and reduces costs, but this is only enriching the lives of a very few – often those who do not need help.

A Common Baseline

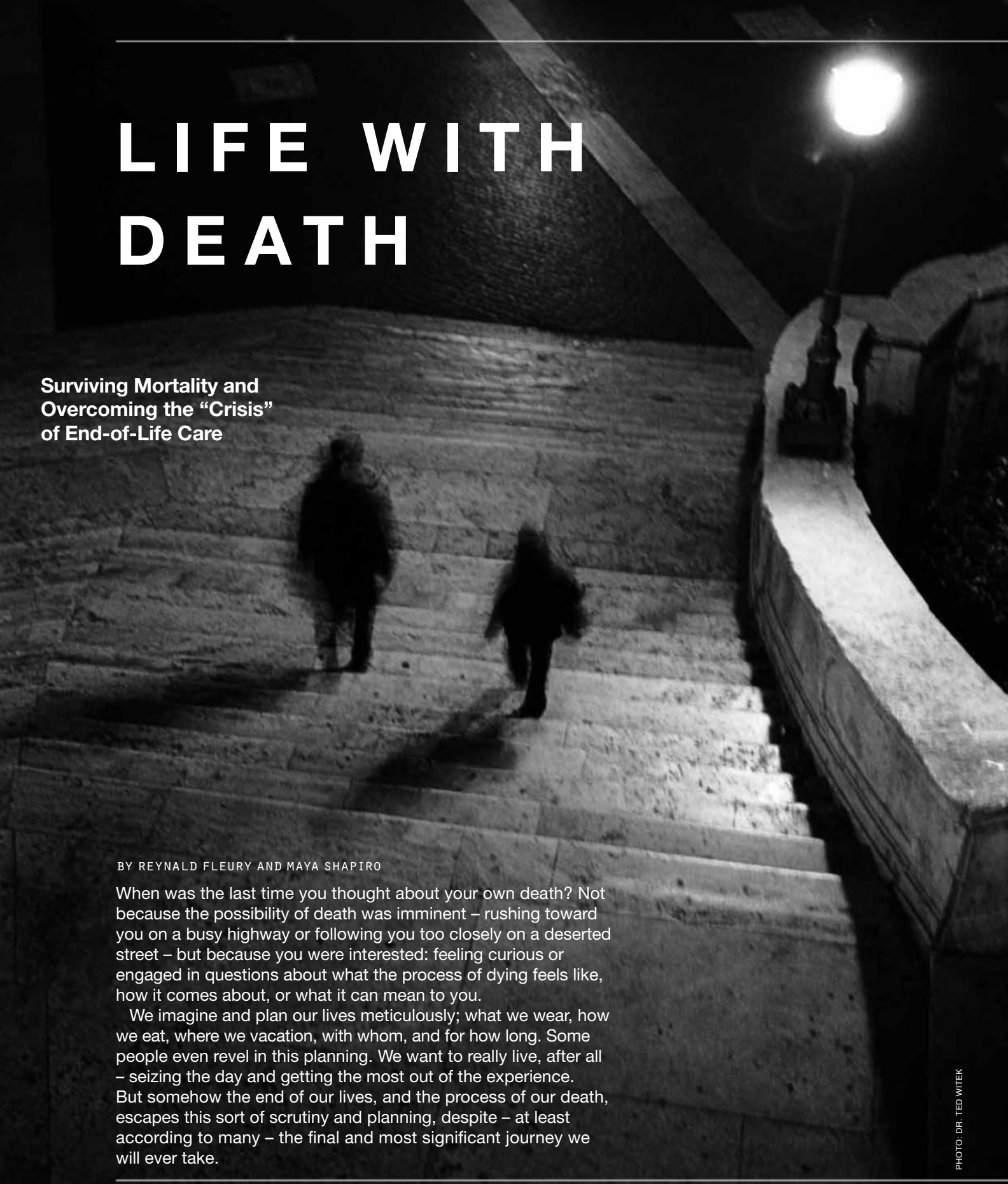
One of the most controversial solutions comes from Standing himself: Governments should offer a basic income. As Standing states, the easiest way to redistribute income and encourage growth is to, well, redistribute income. Offering a basic income would allow governments to redistribute to those who need it. There are criticisms from other economists who believe it will create idleness and stagnate economic innovation and growth, but according to Standing, there is strong evidence that with basic security, people actually work more. It will also lead to more innovative and fair jobs because it gives power back to the worker to choose a job they want, rather than a job they need; thus inspiring businesses to reconfigure their job creation strategies by either removing those jobs altogether or creating new ones that cater more suitability to the workforce. It must be noted that a basic income is different than employment insurance. Although similar to a basic income in that it is meant to encourage people to re-enter the workforce, the latter pressures individuals to accept work that might be precarious or temporary.

Even if you do not believe in the precariat class or the arguments that there is a new class forming at all, there is no denying that instability, insecurity, and social unrest continues to arise all over the world due to the continued crisis within the global economy. Despite governments around the world attempting to address unemployment or implementing austerity measures to manage decline, simply creating jobs or providing tax cuts to the middle class is not enough. Since globalization, the world economy has changed and now governments and businesses need to come to terms with those changes. ////

Rebecca McKeand is a research coordinator at Idea Couture. She is based in Toronto, Canada.

LIFE WITH DEATH

Surviving Mortality and Overcoming the "Crisis" of End-of-Life Care



BY REYNALD FLEURY AND MAYA SHAPIRO

When was the last time you thought about your own death? Not because the possibility of death was imminent – rushing toward you on a busy highway or following you too closely on a deserted street – but because you were interested: feeling curious or engaged in questions about what the process of dying feels like, how it comes about, or what it can mean to you.

We imagine and plan our lives meticulously; what we wear, how we eat, where we vacation, with whom, and for how long. Some people even revel in this planning. We want to really live, after all – seizing the day and getting the most out of the experience. But somehow the end of our lives, and the process of our death, escapes this sort of scrutiny and planning, despite – at least according to many – the final and most significant journey we will ever take.

PHOTO: DR. TED WITEK

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Asking how to make our final days a crisis that engenders opportunity rather than tragedy is one step in equipping ourselves with the tools we need to address difficult issues before they present a problem.
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When we do manage to think about death, particularly in Canada and the United States, we engage with it as a personal tragedy, social crisis, or mysterious entity to be avoided at all costs. This is in part because in our everyday thinking, death is set apart from life. We speak of "life or death situations," and "matters of life and death," as though these are separate and distinct categories, only coming into contact as opposing forces.

In fact, death is an integral part of life. At a cellular level, death is constant. Apoptosis, or "programmed cell death," is the natural process by which cells terminate themselves. They die to protect other cells from infection and disease, or to generate growth, renewal, and development in a cell group. In any ecosystem, life and death exist on a continuum both within individual organisms and within the system as a whole. The process is inevitable and universal. All that lives must die.

But even considering how natural, unavoidable, and continuous the processes of dying are, the topic remains taboo and fraught. So, how can we imagine life with death, talking about our final days as part of (and not set apart from) our lives? How can we attempt to "survive" our own mortality – not by living forever, but by successfully taking our wishes for a pain-free and dignified life seamlessly into the final moments of it?

Reframing the crisis, proposing alternative ways to address death and dying

Through our practice of fatalizing death on both a personal and societal level, we perpetuate a so-called crisis of end-of-life care. News media now regularly warns us that a decline in fertility rates, combined with a steady rise in the average lifespan in industrialized countries, will create a disastrous scenario in which the financial and human resources of the population will be crushed by the heavy top of a demographic pyramid. We fear that the costs of healthcare associated with end of life will force us to make difficult decisions that demand an ethical standard that is yet to be set. While these concerns about demographic shifts and their consequences are valid, our hand-wringing about it all has only made things worse. The narrative of the "gray dawn" and its impending doom has taken away our power over the situation, allowing the crisis to be a thing in and of itself rather than a set of overlapping factors that we can understand and shape.

Crisis, as it turns out, is a word that not only connotes disaster, but also a critical juncture in the decision making process. It is an opportunity for change: a turning point after which things are no longer the same.

With this in mind, we offer some ideas about how to reframe the notion of crisis as it has been applied to end-of-life care. Our suggestions span the overlapping areas of culture, policy, and education, all based on the basic question: What would it look like to live in a world in which we could decide when and how we die?

Advancing a cultural directive

More and more services and online programs offer help in writing advanced directives that explicitly address how one wants to die. While these documents could provide essential information for doctors – saving time, energy, and heartache in the long-term – reports indicate that on the ground they are not particularly effective. The problem is simple: Documents get misplaced, forgotten at home, go unnoticed in a medical file, or are overridden because of factors that the patient could never have anticipated. What matters instead, as informed by health professionals, is the presence of a loved one and their capacity to advocate on the patient's behalf. People must therefore have frank discussions with those around them, acknowledging various possibilities for what may happen at the end of their lives, and clarifying their loved one's perspective on questions ranging from the abstract to the pragmatic.

Advancing a cultural directive suggests the deep meanings of life, death, personhood, and care are commonly discussed. Clearly we will not all agree on the big questions, but it is for that reason that they must be out there in the open, shared among young and old alike. The arenas of policy and education are two ways to forward a cultural directive.

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When we do manage to think about death, particularly in Canada and the United States, we engage with it as a personal tragedy, social crisis, or mysterious entity to be avoided at all costs.
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Providing a policy framework

People are uncomfortable with the thought of reaching an old age characterized by feebleness. As they come to understand more about medication and the ravages of aging, they will want to be discriminating about which treatments they accept. One policy solution is to reverse the default treatment in hospital care. That is, instead of defaulting to treatment, we would default to palliative care, putting the onus on individuals – in conversation with doctors – to clearly identify and articulate what treatment they wish to have. Reversing the default opens the door to another major policy shift, one in which people can opt out of socialized medicine programs (at the national or local level) on a day of their choice. Governments could respond by cutting payroll taxes and even refunding money when appropriate. The added benefit to individuals for choosing an end-date for their treatment could be a tax cut for participating in the program, which could provide much-needed funds for quality palliative and hospice care.

To help us live our death as something that is as comfortable and predictable as possible, policymakers would ensure that essential drugs, including but not limited to painkillers, would be licensed appropriately and distributed effectively. And to facilitate dying with dignity, wherever one prefers, there should be investments in promoting all care options – from community end-of-life care to "remote death monitoring." While some of these interventions may call up dystopian images of *Logan's Run* – in which death is programmed and policed – an honest confrontation of death in political terms is required if we wish to facilitate the psychological, social, spiritual, and practical support that the last days of life demand and deserve.

Updating educational goals and practices

A key feature of technological development in medicine has been its ability to extend the time of death. Medical education, however, either ignores death or treats it as a failure that exposes the deficiencies in a physician's skills or knowledge. Surgeon and author Atul Gawande writes extensively about this problem in his latest book, *Being Mortal: Medicine and What Matters in the End*: that physicians' anxiety about discussing death prevents them from knowing how to help patients through it.

In undergraduate and postgraduate medical programs, healthcare professionals must be taught how to provide a successful path through death. This would include training in delivering essential bereavement support that is so critical in palliative and end-of-life care. Professionals must also be trained to adequately inform their patients about the costs and benefits of medical interventions at the end of life. As people age and become ill, they are taxed with the most expensive care of their lives: that which is delivered in the six months before they die. Information about all aspects of this care must be fully understood by various members of both medical and palliative care teams. Indeed, more resources must be invested in patient-centric research that gets to the heart of how people die, in order to arm medical professionals with what they need to accompany people on that path.

Moving towards the light

Steve Jobs called death "life's change agent," noting its ubiquity and its capacity to motivate. Indeed, thinking about the end of life in less fearful terms is something that is gaining traction and causing real change. The door is open for the reimagining and redesign of processes associated with dying. Asking how to make our final days a crisis that engenders opportunity rather than tragedy is one step in equipping ourselves with the tools we need to address difficult issues before they present a problem.

Our knowledge of the facts and our willingness to face them head on will allow us to accept death – no longer fearing, ignoring, or avoiding it. Ultimately, we will reach a cultural moment where we won't just allow people to live and die with dignity, but we will be able to fully support them in political, social, and personal ways. ////

Reynald Fleury is head of healthcare innovation at Idea Couture. He is based in Toronto, Canada.

Maya Shapiro is a resident anthropologist at Idea Couture. She is based in Toronto, Canada.

Umbra Shift is an extension of Umbra that focuses on contemporary influences in the design community. The result is a collection that expresses diverse points of view, yet sits together with a shared belief in ideas that are functional, familiar and forward thinking.



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BASIC INSTINCTS



***MISC* contributor Ayesha Basi was on her way to Nepal for an excursion to climb to Everest Base Camp when a devastating earthquake hit the country. This is her firsthand account of the weeks that followed.**

BY AYESHA BASI

3,000 meters above sea level, in a small mountain village in Western Nepal, my family and I sat down at a small teahouse for lunch. Having just ascended 800 meters in elevation after trekking through 20 kilometers of Himalayan peaks and valleys, we were ready for our traditional Nepali lunch: black tea and milk, spiced with salt, black pepper, and ginger, and dal baat, a lentil soup served with mixed vegetables, pickle, and rice.

We removed our daypacks and settled into the wooden lodge, admiring the breathtaking views of the snow-capped peaks above us. The town encompassed a small dirt road, dotted with a handful of houses, winding around a cliff on the side of the Himalayas. At 3,000 meters, our breath was strained and the temperature cool, as we started to enter the high altitude's barren and arid landscape.

Three days into our hike, we were beginning to set the rhythm for our 15-day journey, which would take us across the highest mountain

PHOTO: ASIAN DEVELOPMENT BANK



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With the media having conditioned me to expect a city of rubble, displaced persons, and utter chaos, I was pleasantly surprised to find the city fighting for normalcy amidst the wreckage.
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pass in the world – Thorung La – at 5,400 meters above sea level. But this was never our plan. Everest Base Camp was the original destination, until Nepal was struck with a 7.9 magnitude earthquake on May 12, 2015, the day we left Canada – killing over 8,000 people, injuring over 17,000, and leaving more than 10% of Nepal's homes in ruins.

Nestled within the Himalayas, Nepal is no stranger to earthquakes. Straddling a seismically explosive fault line (one that initially formed the Himalayas 40-50 million years ago), the country experiences earthquakes on a regular basis as pressure releases in small bursts from the tectonic plates below. While Nepalis are used to these relatively minor tremors, an earthquake of this magnitude had not been felt since 1934. The 2015 earthquake set off avalanches that swept through Everest Base Camp – killing 17 people, making it the second deadliest event in the mountain's history – and demolished both national landmarks and the country's already poor infrastructure. The people of Nepal were shaken.

As we sipped our afternoon tea, little did we know a second major 7.3 magnitude earthquake would jolt our trip and shake an already devastated country.

I first noticed the sound.

The rattling of dishes, wall hangings, and chairs – followed by what sounded like hundreds of people pounding their hands on a desk, or stamping their feet on the ground. Then I couldn't see straight. My surroundings were pulsating and trembling, as if they had a life of their own. The guesthouse owner dropped her pot on the ground and ran outside, yelling in terror, *"Boukum! Boukum!"*

"Earthquake," in Nepali.

The gravity of the situation finally hit me. My body took over and responded immediately, my mind lagging behind by several minutes – making the experience feel like I was watching myself from the outside. My reaction was twofold: total efficiency, followed by a sickeningly acute acknowledgement of my absolute lack of control. Grab passport. Help my great uncle out of the house. Find my mother. Move to a part of the road with less rock overhang.

Reactions in moments of crisis are incredibly instinctual, and after these initial responses, my body and mind became very still. Clear and incredibly present, I was gravely aware of my lack of control. My lack of choice. My lack of power to do anything. I was left with nothing but the ability to humbly surrender to Mother Nature's wrath and the chaos and uncertainty unfolding around me.

The Nepalis' collective instinctual response was to pray. As we all stood on the road together, a silence fell over everyone. As the earth continued to shake, the noise of rumbling filled our ears, along with the whispers of prayers, as Nepalis closed their eyes, held their hands together at their hearts, and pressed prayer beads through their fingers.

And then it stopped.

My family and the village were safe and intact. Emotions were high as we saw small fissures in the ground, and dust from surrounding landslides covered the roads we had walked a mere 15 minutes ago. But above all, an air of gratefulness emanated from the community, thankful to whatever had kept the rocks above us steady and the ground below us solid.

While the next 48 hours harassed us with aftershocks and a harrowing adventure of escaping the instability of the mountains, they also surprised us with moments of utter normalcy. Dinner still had to be cooked, fields ploughed, and goods carried up the mountain. There were moments where it seemed like the earthquake never happened.

Our teahouse ended up being a central hub for the community, and was filled with people from the village throughout the entire night. As we played cards late into the evening – having to stay awake and alert in case of major aftershocks, which inevitably sent us running back onto the road in the middle of the night – I was surprised at how conversation oscillated naturally between the earthquake and relatively trivial topics. One moment, we were solemnly comforting one of our porters after learning of the total decimation of his house, which he had used his entire life savings to build, and the next second we were laughing together about a completely unrelated matter.

These acts of normalcy, so soon after a crisis, surprised me when I first landed in Kathmandu as well. With the media having conditioned me to expect a city of rubble, displaced persons, and utter chaos, I was pleasantly surprised to find the city fighting for normalcy amidst the wreckage. Shops were open, motorbikes flew down the streets, and people performed their daily routines. While I had initially thought the earthquake had brought down the majority of the city's structures, in reality, Durbar Square was the main area that suffered vast overarching damage, and thus was the most portrayed in the media. The square had most of its UNESCO World Heritage Sites completely destroyed, while the rest of Kathmandu had concentrated areas of damage rather than widespread destruction. Traffic lights hung off their poles, cracks littered the ground as well as buildings, and some structures leaned into each other. But, its people carried on.

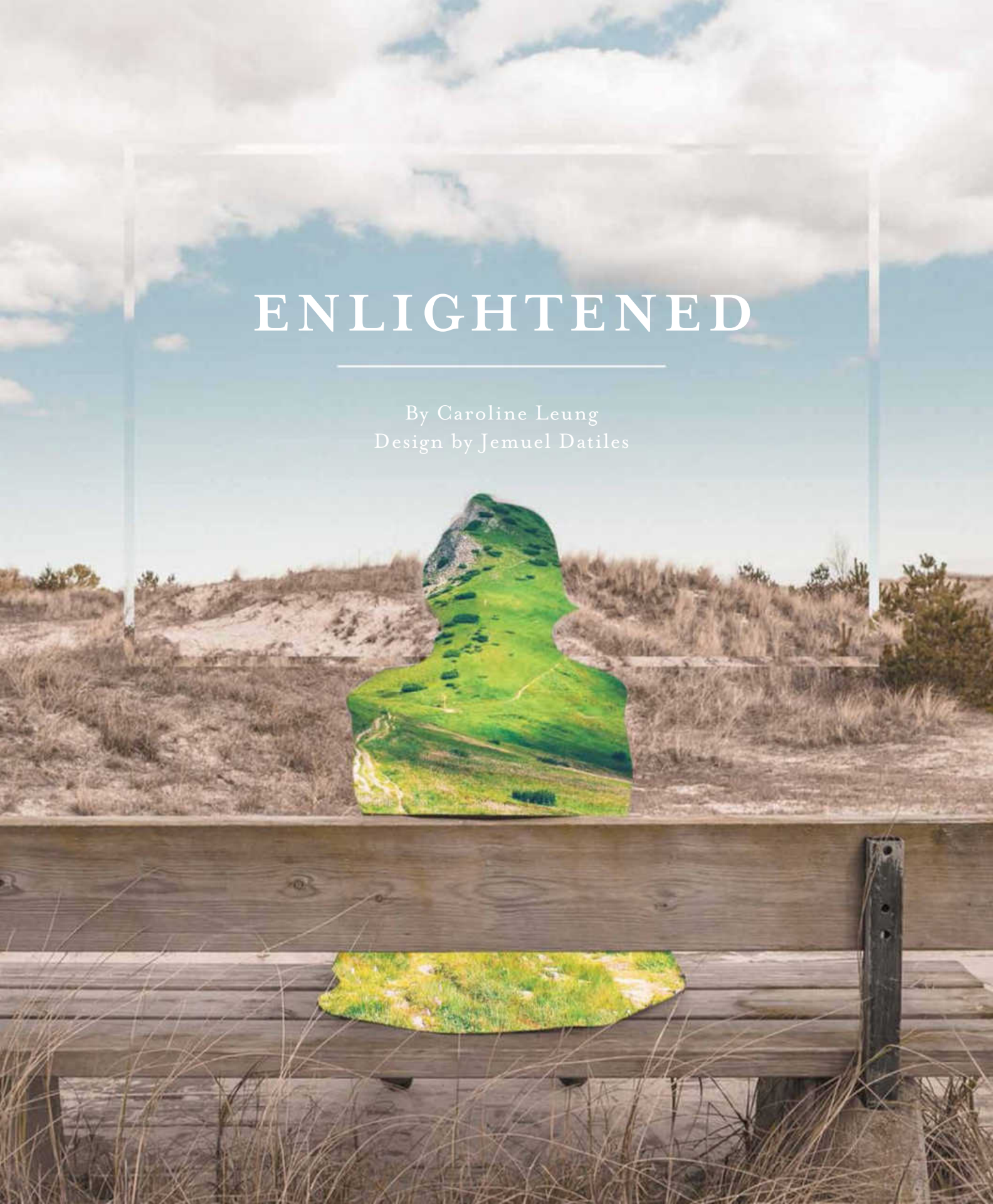
Born into one of the world's poorest countries, sitting atop a fault line with a ticking time bomb, and the majority of its people living in remote villages made inaccessible by the country's small infrastructure of roads, the Nepali people are an example of resiliency in it's truest form. Perhaps it's an acceptance of the reality they're raised within, or perhaps it's the strength of the human spirit.

Or maybe it's that we have no choice but to keep moving forward, one instinct at a time. ////

Ayesha Basi is a content producer at Idea Couture. She is based in Toronto, Canada.

ENLIGHTENED

By Caroline Leung
Design by Jemuel Datiles



John Lohavichan is a former software entrepreneur from the finance world who devised a gadget that would wash a car – any car – with only 1.5 gallons of water. Christened as Gleamfire, the gadget was inspired by Boston's famously bonechilling winters. It was virtually impossible to get a car clean outdoors without the running water coming to a frozen standstill, yet the water had to keep coming from a clean source. In the waterlogged tradition of most eureka moments, Lohavichan's solution to this catch-22 came to him by way of his aquarium: combining the technology that enabled the filtration in the tank with car-washing.

The framing of his design as a messiah to our planet's rapidly depleting resources was completely unintentional. Says Lohavichan, "When I was testing the product, the California water drought wasn't a big issue. It was…" he paused. "I wouldn't say odd, but it was a coincidental factor that the drought became such a huge issue that the product focus I was working on totally aligned with that area."



Despite his success as a sustainable product designer, Lohavichan doesn't consider himself to be an expert. When asked about his thoughts on the available array of sustainable products in the market, he's hesitant: "I'm not sure if I'm qualified to talk about that. But what I've learned from talking to car enthusiasts – with people who aren't that environmentally concerned, who don't go shopping at Whole Foods, who aren't spending money on eco-products – if you mention this to them, they look at you like you're an alien."

Be it humility, or the serendipitous but albeit accidental origin story of Gleamfire as a sustainable product, Lohavichan's everyman approach worked to his advantage. He was adamant about the democracy of the product, carefully scouring the aisles of Home Depot to find the necessary parts to put together Gleamfire to keep costs low. To test out features and usability, he brought Gleamfire to a series of car fairs in Boston. Enthusiasts were awed by Lohavichan's ingenuity, wondering why he hadn't yet brought it to *Shark Tank*; they couldn't wait to share with him the ways they themselves washed their Camrys and C-Classes.

Gleamfire's built-in filtration system also ensures that the water run-off from car-washing is clean, eliminating any polluting factors in the downstream. Like the gadget's sustainability advantages, however, this too went over the heads of the car fair goers. "Car guys aren't concerned about that. If you made a product that was 'cool' and outperformed their product solution, but also had that benefit, now that's something that really boggles their minds," he explains. It ultimately comes down to the accessibility of the product, which determines how well the solution aligns with the user's day-to-day. Is it likely for a typical family in the middle-class Midwest to pick up an all-purpose cleaning spray at Whole Foods made from extracted seaweed and lovingly packaged with fungi-grown plastic? It's a laughable thought. Lohavichan is, at his core, a numbers man fueled by an almost corporate brand of pragmatism. Prior to starting Gleamfire, he was working at Thomson Financial as its vice president and head of product direction of investment management, and remains true to his roots: "It's all about taking that idea [and] figuring out who's the market for it. Who's willing to pay for that? How do you economically fit that into a supply-chain, manufacturing-chain model? If you can't figure that out, then you gotta hold off. You're not going to be able to have a viable model for your Gen 2 or 3 mushroom plastic."

Gleamfire, with its carefully ergonomic design, Home Depot DNA, and as-of-now $100 price tag, is aeons away from the skyscraper greenhouses that come to mind when pondering our sustainable future, though it's only natural to take on an imaginative – practically ethereal– lens when thinking of such matters. After all, optimism, when ungrounded by blame and abstracted by the unthinkable scope of the issue at hand, has nowhere else to go.

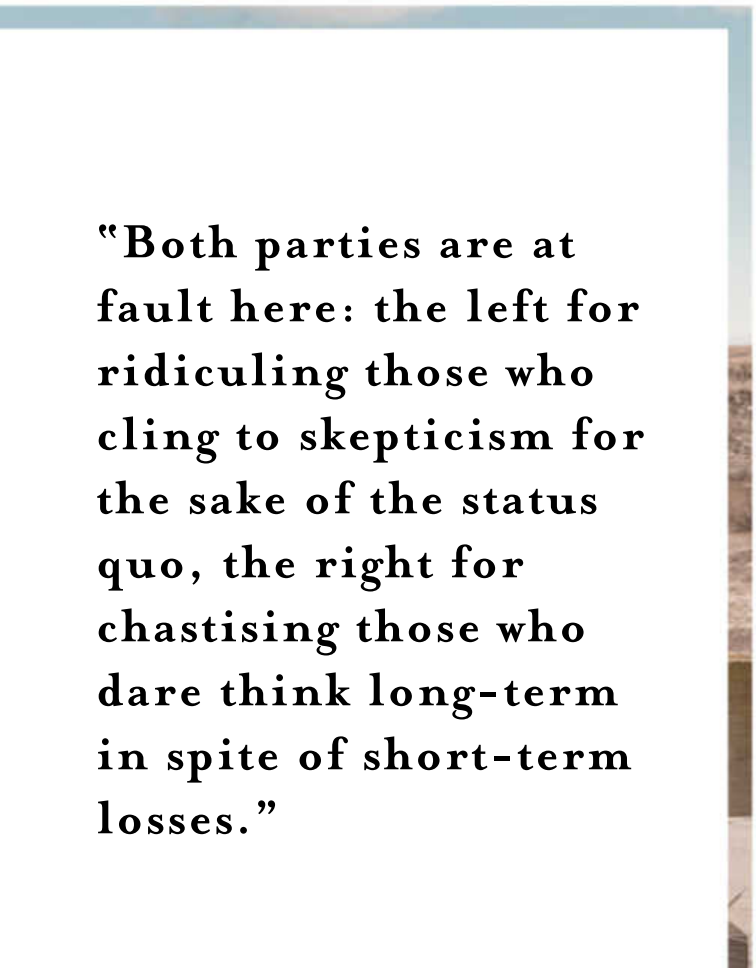
When I ask Lohavichan whether he sees the unanimous agreement on climate change ever happening, he was apologetic but firm: "I think there's a good chunk on both the east and west coasts that will agree with you. But in the middle, nobody does."

He rattles off a list of examples he's heard. "*I've always done it this way. It costs too much. The economy's really bad. I'm trying to focus on what makes me happy. I don't want to listen to what someone is trying to tell me.*" That you – average Joe or Joanna – is a contributor to the collapse of our polar caps, the desaturation of our landscape, the creeping upwards of our sea levels is unfathomable, naturally, because you don't see it happening. "I mean, the flooding and stuff – they're asking, is this caused by something I'm doing? I don't think a lot of people believe that. And the reason why is because they refuse to believe it."

Photo: John Lohavichan/Gleamfire.

On June 18, 2015, Pope Francis published *Laudato Si'*, or *Praised Be:* a papal encyclical that dwells on climate change and what the 1.2 billion Catholics on our dying planet can do about it. It's the first document of its subject in the religion's thousands of years of history, as the most formal means of messaging a pope can issue. Much like his namesake, St. Francis of Assisi, his legacy is shaping to be one that unites the inhabitants of god's greenery and the greenery itself in common responsibility. An excerpt:

> *"That human beings destroy the biological diversity in God's creation; that human beings compromise the integrity of the earth and contribute to climate change, stripping the earth of its natural forests or destroying its wetlands; that human beings pollute the water, soil, air; all these are sins… We do need to slow down and look at reality in a different way, to appropriate the positive and sustainable progress which has been made, but also to recover the values and the great goals swept away by our unrestrained delusions of grandeur."*
>
> —*Pope Francis,* Laudato Si'



"Both parties are at fault here: the left for ridiculing those who cling to skepticism for the sake of the status quo, the right for chastising those who dare think long-term in spite of short-term losses."

It was a move that was met with simultaneous defence and offence, by both those within and outside his theological jurisdiction. Former Republican presidential candidate Rick Santorum – also a Catholic himself – dismissed the document with a finger-wagging reminder of Pope Francis' area of expertise: "The church has gotten it wrong a few times on science, and I think we probably are better off leaving science to the scientists and focusing on what we're good at, which is theology and morality." Cardinal George Pell and former archbishop similarly washes his hands of the church's place in science, which is none at all: "The church has got no mandate from the Lord to pronounce on scientific matters… we believe in the autonomy of science."

In the face of surmounting evidence of our planet's surrender, that climate change deniers have retained their stance is impressive; sympathetic, even. It's the portrait of humanity as a red-faced pigtailed child with diabetes, denied the sugariest aisles of a Safeway, whose myopic rage and misguided sense of justice simply cannot comprehend the weight of the alternative. Or this analogy might make the metaphorical pill easier to swallow: We are a species of Robin Hoods, robbing from Earth's unguarded bounty to feed the pursuits of an otherwise helpless human race; a heroic perversion of what we think is the bottom line. (Refer to the recent revelation of Exxon's knowledge of climate change in 1981 – and the subsequent 27 years of climate denial funding.) Or just call it groupthink at work: an enduring respect for the status quo that could only continue for so long, an unwillingness to rock the already shaky boat, the aversion to responsibility: *What did we do to deserve this?* Nothing that everyone else wasn't also doing.

It should come as no surprise that climate change is one of the key polarities in American political ideology. A 2014 Pew Research Center survey reports 96% of liberals believe the country has not done enough for the environment; conversely, 75% of conservatives believe the country had gone too far in its efforts. The same survey reports other major factors – Iran's nuclear program, North Korea's nuclear program, ISIS – as much more imminent threats because of the tangible culprits, the antagonistic Other.

"Therein lies the issue of most meteorological reporting: devoid of humanization despite our livelihoods being its cause and consequence."

Indeed, the moral implications of crisis management are far clearer when the measures apply externally. It's also makes for a cleaner, and in so doing, a more engaging story for some: a neat categorization of victories and losses to separate sides. Despite its indiscriminate effect on humankind, the narrativization of the crisis is arguably how it became an issue of such moral and political divide. This rendering makes the crisis palatable. And both parties are at fault here: the left for ridiculing those who cling to skepticism for the sake of the status quo, the right for chastising those who dare think long-term in spite of short-term losses. Feelings of outrage and righteousness can be savored, relished; compared to chastened and subdued.

Although this phenomena – christened "pessimism porn" by former *New York Times Magazine* editor Hugo Lindgren – was coined for the global financial crisis of 2008–9, it's somewhat applicable here:

> *Like real porn, the economic variety gives you the illusion of control, and similarly it only leaves you hungry for more. But econo-porn also feeds a powerful sense of intellectual vanity. You walk the streets feeling superior to all these heedless knaves who have no clue what's coming down the pike. By making yourself miserable about the frightful hell that awaits us, you feel better. Pessimism can be bliss too.*
>
> *—Hugo Lindgren, "Pessimism Porn"*

For the media, few muses have been as literally apocalyptic as climate change. When the battle isn't pitting liberals against conservatives and vice versa, contextualizing the crisis of climate change as a force that refuses to be reckoned with also makes for pleasurable – albeit masturbatory – reading material. At this time of writing, climate change news is dominated by an impending El Niño that will skyrocket 2015's temperatures (already running at 0.9 Celsius higher than normal), alongside the predicted decrease of 60% in solar activity to come between 2030 and 2040. How's that for a thrill? Therein lies the issue of most meteorological reporting: devoid of humanization despite our livelihoods being its cause and consequence. It is guaranteed sensationalism, with a permanent and interchangeable divide of good and evil, a workout for cynicism and faith, with consequences distant enough for it to qualify as spectator sport.

If on one hand we have the short-lived highs of outrage and disaster preparedness, on the other we have utter existential despair. The scientists who operate exclusively in the field of climate change are often bound in the iciest ends of the earth, the detached nucleus of this circus. What are they thinking?

The permalink to an *Esquire* piece – "Ballad Of the Sad Climatologists" – is a cheeky summation of the subjects' occasional bouts of helplessness, and an intriguing one that will undoubtedly draw clicks. It begins with a brief demonstration of leading climatologist Jason Box's ability to keep it real, by way of a tweet that was thoroughly skewered by the media: "If even a small fraction of Arctic sea floor carbon is released to the atmosphere, we're f'd." Although a science, and in so labeling should be requisite to the impartiality that dictates scientific writing, how can we escape objectivity when its very study concerns our actions? Claims of bias can be made, but Box's fighting words turn climate change into a matter of universal morality. There's a vast difference compared to the divide posited by political media.

As the antithesis to the finger-pointing, co-director of the *New York Times'* opinion documentary series *Animated Life* Flora Lichtman hosts a podcast *The Adaptors*, which explores the probabilities of various sustainable hacks and what-if scenarios – such as the technology on the International Space Station that enables the recycling of sweat and other bodily fluids into portable water, or philosopher Matthew Liao's bold proposal of genetic biomodification (such as meat allergy) for our planet. The podcast also features a "climate confessions hotline," a twist on the call-in radio shows of yore that turns what we do – or do not do – for climate change a matter of empathy, not judgement.

Before coming to terms with the inconvenience that comes with living sustainably, shame and guilt will silence any willingness to even consider it. This principle has powered *The Adaptors* and Gleamfire to success. "I think the step to take is to come up with something that's better than what we use today, but still allows you to participate in it and help you open your mind and understand it better. Otherwise, they'd refuse to," says Lohavichan.

It's a blow to suggest climate change as an accumulated disaster of mankind's most misguided triumphs. But intent is not synonymous with responsibility – least of all when we're all in this together.

Caroline Leung is the editor of MISC *and a writer at Idea Couture. She is based in Toronto, Canada.*

MISC Gallery



BY IDRIS MOOTEE

A country that is no stranger to conflict, the many faces of Israel are explored here. From the modern streets of Tel Aviv to the mystery and spirituality of Jerusalem, we see the resiliency of a country constantly bombarded from the outside, but held together by the strength and beliefs of its people. Despite being in a seemingly constant state of crisis and dividing outsiders with its political and societal ideologies, we remain curious. Thousands pilgrimage to the Wailing Wall to leave written prayers in its crevices. Tourists enjoy silky-sand beaches and camel rides. Visitors catch glimpses of a community who seem both familiar and far removed. It cannot be denied that – despite its problems – Israel remains one of the most beautiful, intriguing, and holy countries in the world.










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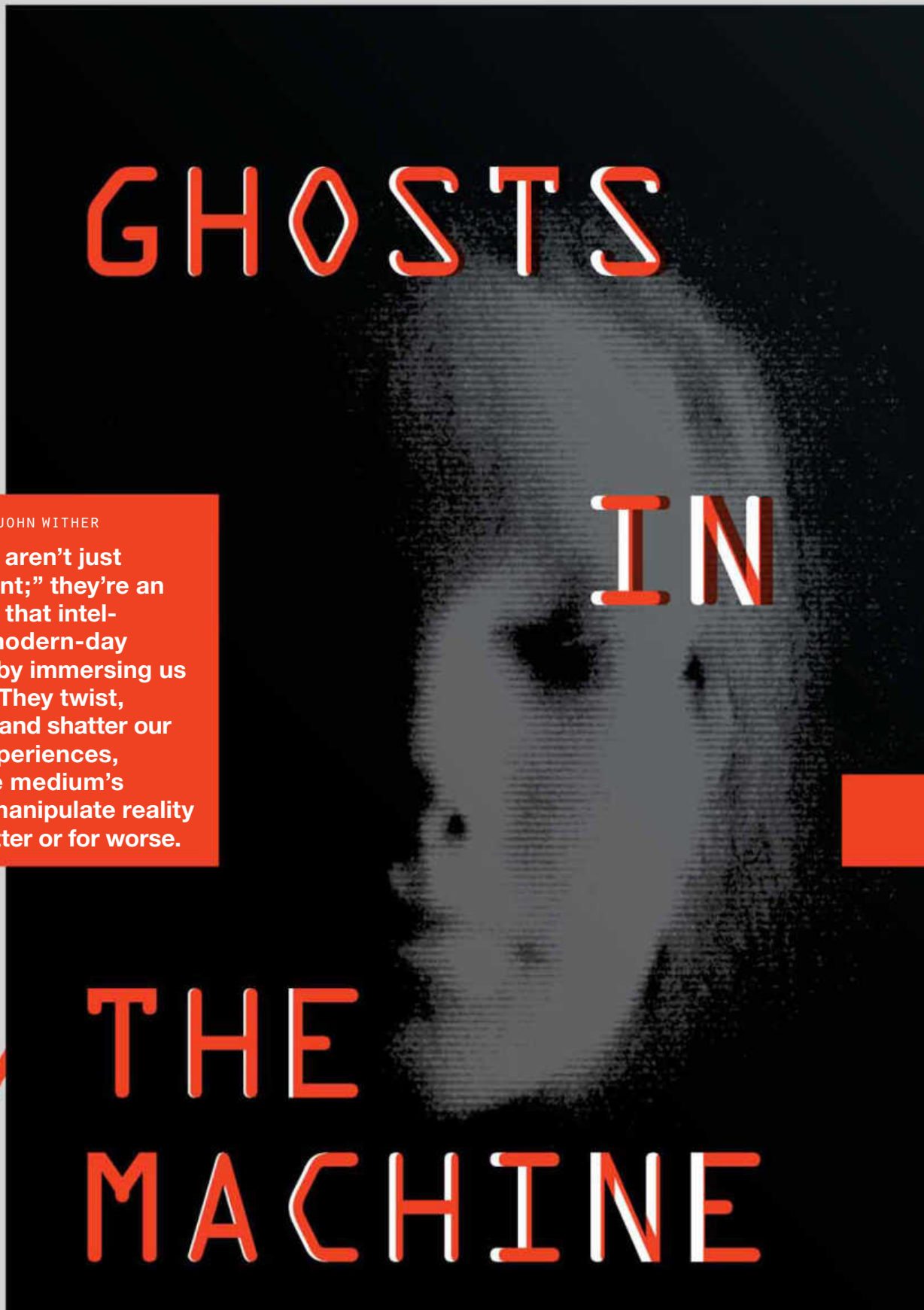
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GHOSTS IN THE MACHINE



FEATURE EDITOR: JOHN WITHER

Video games aren't just "entertainment;" they're an art form, one that intellectualizes modern-day conventions by immersing us within them. They twist, shape, mold, and shatter our collective experiences, exploring the medium's potential to manipulate reality itself – for better or for worse.

PHOTO: OLIVER THOMPSON



How Games Reveal Our Love of Crisis

BY DEREK LAST

As a working definition of crisis, I'll refer to David Harvey who, I think, appropriately defined the experience as "nothing less than a massive phase of dispossession." Perhaps no other part of our popular culture delivers on Harvey's definition of crisis more often than games do. After all, if we look at the majority of stories we tell, their interest is derived from a source of crisis – "the hero's journey," as Joseph Campbell most famously suggested – one where the protagonist's (or, sometimes, antagonist's) voyage is driven by nostalgia to return humanity to a pre-catastrophic state.

But the distinguishing insight here is that we willingly let no other part of our popular culture place us in a crisis state more often than games. And, perhaps most interesting, we find this experience to be fun. Some games go so far as to erase the fact that we ever played them at all: Game over.

This feature of games – failure followed by crisis – is an essential trigger to heightened engagement within gameplay. Games theorist and ludologist Jesper Juul studied the effect in his book *The Art of Failure*, discovering that gamers desire the difficulty that leads to failure because it is a sign of a game's authenticity; one worth investing both time and effort into. Juul surmises that games are ultimately the art of failure as "play" is the designed outcome of challenging environments and systems that support success and loss in equal measure.

But what does this mean for our love of crisis? In order to better understand the context of this association, it's necessary to examine how crisis manifests as a central narrative device in contemporary storytelling and, in turn, specific gameplay mechanics, namely: failure, repetition, competition, identity, and hacking.

PHOTO: R. NIAL BRADSHAW

Failure

It comes as no surprise that we have a heightened awareness today of failure's relationship to success. Quotes delivered by famously successful entrepreneurs tell us that failure is essential to learning. Indeed, when we embrace the ethos of failure our concern for convention fades away, and immediately unconventional behavior is highlighted as the prerequisite to success. By convention, games reward unconventional thinking. As a genre, puzzle games, such as *Portal*, *Tetris*, and *Minesweeper* go so far as to make it the principal element of gameplay. As they force us to adapt to the changing circumstances brought about by continuous failure, these games place us in states of crisis, re-wiring assumptions and long held expectations. It's this process of adaptation following failure that keeps us coming back for more time and time again.

Repetition

Repetition is a critical component of game design that is manifested in gameplay through repeated environments, characters, and actions. When we fail, we are brought back again to a point we've already experienced, and are asked to overcome repeated obstacles until we come across something new. Retracing our steps causes us to discard unsuccessful actions, and adopt successful techniques or actions that become shorthand strategies to turn aside obstacles that are familiar. Because of this, it is often the case that players adopt go-to strategies in games like *Counter Strike*, *Call of Duty*, and *Dark Souls* when faced with recurring obstacles. The key to repetition is that it is an effect of failure and the consequence of crisis. It causes us to reflect and learn, teaching us what to do and not to do on our next go-around.

Competition

In Classical Greek, the term *agon* is used to described a struggle or contest – the two phenomena seemingly paired together under the recognition that there is no such thing as a winner without there being a loser, too. The agony of loss comes to life especially in multiplayer competitive game environments, in which the dynamics of gameplay are both less predictable and fluid because human beings prove effective at adapting to each other's strategies following failure. In this way, competition in games reveals how we not only like to experience crisis, but that dynamic learning requires us to inflict crisis on those we compete against.

Identity

It goes without saying that, under the rules of orderly social conduct, we wouldn't want to celebrate the idea of inflicting crisis on others. But it is interesting to consider that this might be one of the biggest reasons why we play games. Indeed, we get to do things in games that we otherwise wouldn't get the chance to and, consequently, learn from the experience itself. This reality extends itself from playing a mythical creature in *World of Warcraft*, to playing a criminal vigilante in *Grand Theft Auto*. Games allow us to immerse ourselves in an identity crisis as we explore our personal limits when the conventional rules that guide our social behaviors no longer matter. In this way, the crisis that games present to us is nothing more than our ability to test what happens when we decide to take risks and tow the line between chaos and order.

Hacking

Not simply an aspect of gaming culture, hacking represents one of the valuable outcomes of continuously embracing crisis in games. As a burgeoning cultural phenomenon, hacking has become the subject of games, like *Watch Dogs*, in which we are taught how to subvert systems in order to survive and control change. Rather than simply playing within these predefined systems and biases, hackers show us the importance of playing with their definitions, and how discovery and innovation naturally flow once mastery of systems gets paired with imagination. Indeed, during the process of learning from crisis, games cause us to subvert our own systemic thinking.

Crisis = Innovation

Transitively, our attraction to crisis in games begins to tell us a bit more about the human condition in general. That, as games consistently dish out these simulated scenarios of struggle, the real crisis at hand is our search for it – to have crisis within arm's length at all times while experiencing success, however we choose to define it. It suggests we actively seek out the things that place us in a constant stage of change and uncertainty, defining achievement as one possible outcome of venturing out into the unknown.

Ultimately then, this becomes more than gamification. It's an identification of paradigms and routines waiting to become obsolete through disruptive behavior. As narratives that articulate our cultural and social awareness of contemporary living, games become a re-presentation of how complex systems work to develop and define both human being and identity – from how we behave and speak to how biases get formed when we see familiar approaches to success.

As famed literary critic Northrop Frye wrote, "the poet's job is not to tell you what happened, but what happens; not what did take place, but the kind of thing that always does take place." Applied to contemporary storytelling, the game designer becomes the modern-day poet, offering a reflection of contemporary living or "what happens," with the love of failure followed by crisis being at the core of what "always takes place."

In this way, games speak to the importance of innovation as a core element of the human condition, and why its re-occurrence matters to us. Ultimately, innovation is the outcome of crisis, and the result of our learning from past failures – both personal and communal – to adopt a new way forward. Whether in relation to the inspiring entrepreneur or future-gazing business, many approaches exist to tackle a specific problem. Some fail due to improper timing, not technique. Some succeed due to plain luck, and of realizing a small window of opportunity in a time of high unpredictability. Regardless of how it manifests, we all want originality to repeat itself, and games give us this feeling over and over again as we fail and learn while navigating the familiar discomforts of crisis. ////

Derek Last is a brand innovation strategist at Idea Couture. He is based in Toronto, Canada.



Up, up, down, down, left, right, left, right, B, A, start.

BY JOHN WITHER

To most gamers, it's the Konami Code. To some, it's an obsession.

To those who suffer from OCD, every day comes with the ever-pressing stipulations of your mental illness. It's malignant. A persistent growth that turns every action into a mental chore; one over-encumbered with cognitive calculations that draw a thinning line between safety and catastrophic harm. But, between the incessant flicking of a light switch and becoming paralyzed by the uncertainty of the world around you, there are video games. And they can be good.

Not just in the sense of enjoyment, but as a source of liberation – of freedom rarely felt from the prison of a mental condition. Whether it's exploring haunted hallways in *Castlevania* or traversing time and space in *Super Mario Galaxy*, every minute spent in another world can become a relief from your own.

To those who have experience with the illness, this may seem counter-intuitive. Blogger and PlayStation social media specialist, Ryan Clement, writes about it at length for *IGN*, noting how a highly-regarded game like *Skyrim* became debilitating: an open-world sandbox littered with collectibles "needing" to be collected and 100-hour achievements "begging" to be achieved. Every number becomes a necessity, one that drives an ever-pressing spike through the heart of a game. Often, it's overwhelming – searching through the tall grass of *Uncharted*'s jungle terrain for forgotten treasures – and, more severely, catalytic – remnants from the anxiety leaking into your everyday experiences. However, for every anxious tinge felt for missing a single talisman, a cathartic rush of adrenaline replaces it, driven by the game's uncontrollable elements.

Control: That's what it all comes down to. In a world where your every action comes premeditated, the feeling of uncertainty becomes unbearable. Thus is the nature of the condition: You obsess, stress, give into a compulsion. You alleviate the anxiety. You gain control; lose control. You repeat. Causally, a cyclical pattern develops, one driven by dependency on the very problem you're trying to alleviate.

But in video games, that's not an option. Play is predominately reactionary. Non-playable characters (NPCs) puppeteered by artificial intelligence swarm you. In-game events trigger without your knowledge. Online combatants attack with little, if any, notice.

In lieu of control, instinct takes over. There's no time to count the amount of pixels on the screen or bullets in your clip. There's you and the element of intrusion, one that rapidly refuses to wait for an errant lapse of calculated

PHOTO: RUFFROOTCREATIVE.COM



logic. But, with practice, we become acclimated to these pressures, honing the ability to adapt within a large spectrum of instances.

These are the foundational elements of cognitive-behavioral therapy (CBT). Used as the predominate source of treatment for OCD and Generalized Anxiety Disorder (GAD), exposure and response prevention (ERP) – one of the two defining sub-segments of CBT – becomes the practicing mandate to control obsessional fears.

Through ERP, you're asked to expose yourself to the obsessional fear, then prevent yourself from succumbing to the compulsion, consequently leaving yourself vulnerable to the anxiety and discomfort that follows. This is measured through Subjective Units of Distress (or, SUDs) on a scale from 0 to 100.

Take, for example, a germaphobic obsessional fear. With ERP, you would be asked to construct a hierarchy of SUD-inducing acts – touching a garbage can, shaking hands with a stranger, using a public restroom. Then, systematically you consciously expose yourself to each tiered item in escalating order, without relapsing into a period of compulsion. Through repeated and prolonged exposure, what you initially diagnosed as a 50 becomes a 30, then a 10, until it's only a passing thought that doesn't elicit a catastrophic response worth compulsion.

We work to deal with it; but so too does the body. Intrinsically, we have an anxiety-relieving mechanism, one that quells any prolonged feelings of discomfort. As such, the goal of treatment becomes reaching this precipice of uncertainty without caving to our comfort-inducing compulsions, letting our anxiety naturally de-escalate.

And, after the comedown, we're struck with the frivolity that's come to define our misunderstanding. Shaking hands doesn't cause cancer. Stepping on a crack doesn't harm a family member. A siren is not a signal your house is on fire.

Comparatively, games become an unrelenting locomotive hurdling through the tunnel vision of OCD-centric thinking. In games, an obsession triggers, but instead of fidgeting on the analog four, eight, twelve times, you're instead forced to deal with external forces attacking from all fronts. Compulsion's not engaged. And there's no time to go back either; the element becomes a digital linebacker, one that keeps pushing you away from the same toxic, well-worn route.

Little by little, you learn. And when the game is over, and the system fan begins to cool, cognitive cause and effect slowly becomes unhinged with the realization that these actions don't come with life-shattering consequences.

Reimagining the Mind's Eye

And yet, we've only scratched the surface of gaming's potential to alleviate mental illness. Because while the pre-mentioned method becomes a potent formula to alleviate the strain of physically evidenced OCD, it lacks an integral component for those suffering from metaphysical manifestations – proof.

As suggested before, a germaphobe can physically "see" that shaking hands with a stranger doesn't give them a life-threatening illness. The same can't be said for an individual suffering from the fear of God. Scared of even the slightest of blasphemous slips, they stand in paralyzing judgment of whether thier actions in mortal life will grant them acceptance to "heaven." But where is their proof? How can they be shown the consequence, or lack thereof, of their actions?

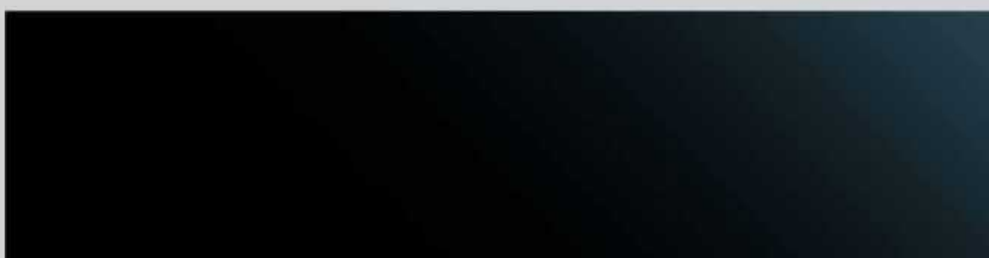
In CBT, the answer lies in Imaginal Therapy. ERP becomes constructed scenarios, ones you write out in graphic detail and visualize, reading over every catastrophic detail in real-time as if you were painfully present. And it works – but only for a moment.

The mind can only imagine so much – acclimate you to so much – before the exercise exhausts its utility. But what if we could create these scenarios? What if these metaphysical worlds could be visually manifested before our eyes? It would dramatically change the way we dissect, tackle, and effectively treat mental health. It would be VR, and stigma-inflicted worlds that we could live through. Why not create the worst possible scenario? Why not create "hell"? Through immersive means, catastrophic events could be actualized; proof could be realized.

Intrinsically, it becomes about increasing tolerance, not certainty. It's about facing your worst fears imaginable, and understanding it's only one of a myriad of possible low-probability scenarios that could occur. And, if it did indeed take place, however insignificant the percentage of possibility, we've acclimated ourselves to the thought – through the virtual experience – that it could happen.

Fundamentally, video games begin to transcend their perception as an entertainment platform and enter into the realm of psychotherapy. Whether it's OCD, GAD, or PTSD, video games firmly cast their gaze onto the mainstream eye of mental health, catalyzing an ever-stigmatized group of people who have long been left to their own catastrophic devices. ////

John Wither is a creative strategist and writer at Idea Couture. He is based in Toronto, Canada.



INTRO



Gaming as an Empathy Tool

BY ESTHER ROGERS & JOHN WITHER

In a world traditionally known for *Minecraft*, MOBAs, and first-person shooters, a sub-genre is forming. Those taking only a peripheral glance may mistake gaming as 'just another' entertainment platform, but the medium itself offers an immersive gaze at the human condition. After all, with gaming comes the ability to live through experiences – and not just fantasized scenarios, but those that resemble the realities of life.

Cancer. Addiction. Gender issues. Dementia. Real war.

It's true that elements of empathy have been present in gaming for decades, and even games like *The Last of Us* rely heavily on hitting those emotional notes for their success. But games that put empathy at the core are emerging as a genre of their own. Intrinsically, they're more than just a form of play; they're an education, immersive stories that enlighten players by making them a central, evolving part of it. Whether it's a puzzle or point-and-click, the primary intent becomes evoking an emotional reaction from the player, while simultaneously informing them of a new perspective on a personal topic. True "empathy games," as they've been coined, delve far deeper than the fleeting feeling that comes when a beloved character dies in battle. There's emotional residue, one that pervades our subconscious and lingers long after we put the controller down.

Imagine, for example, experiencing the emotional journey of a mother and father whose child has just been diagnosed with cancer. In the game *That Dragon, Cancer*, creators Ryan and Amy Green solemnly shared their son Joel's story. The game itself became a source of self-therapy – a nurtured coping mechanism – to both deal with the loss of their late son, and memorialize him.

Ryan Green recounts how his personal experience informed the game's emotion-based play: "Initially it was important to us that players understand all the ups and downs, therapies, medications, sickness, hospital visits, tumor recurrences, and hard conversations we had over the four years of his illness. In the end, we didn't have the time or resources to share that, and if we did, a video game experience would read more like a novel or our family blog. In light of that fact, the details of design and story became subject to the question 'Does this help me love Joel?' So even in the hardest most emotional scenes in the experience, caring for Joel is the goal."

Green was also surprised by how quickly and intensely players connected with their project, the experience becoming an opportunity to help change the way we view games – and the people in our lives. "My hope is that it causes us to see each other," he says. "Really see each other, rather than the caricatures we've created of each other. And as a result of that, we can temper some of the toxicity that rules the rhetoric around video games."

While *That Dragon, Cancer* takes the player through the everyday turmoil and inner dialogues of its emotive premise, other games explore empathy using more familiar gameplay tropes and mechanics, creating a narrative mask that lowers the barriers to adoption. For example, *Papo & Yo* is a puzzle game that takes you into the imaginary favela of a young boy and the monster he befriends – who happens to be a representation of creator

PHOTO: DWAYNE BENT



Vander Caballero's alcoholic father. While the creature first appears to be kind and helpful, it's prone to inexplicable and sudden fits of rage, brought on by its unquenchable addiction to eating frogs. In these moments, the player becomes a target of vulnerability, having to run, hide, and avoid being swallowed whole during the monster's rampage.

But the metaphor extends beyond the barrier to play, and into an intentional mechanic that Caballero employed to create a game capable of attracting younger players who might be struggling through the same situation as Quico, the main character. In it, *Papo & Yo* becomes a catalytic experience, one that inspires both empathy and a feeling of understanding for those who relate to it on a personal level.

Although both the games mentioned come from their developer's personal experiences, it's not always a necessity for creating an immersive empathy-based game narrative. *This War of Mine* was inspired by the inhumane conditions experienced by civilians during the 1992–1996 Siege of Sarajevo. As a survivor-based strategy game, players are placed in the role of an omniscient being, one with the goal of ensuring war-torn survivors are kept alive by maintaining their health, hunger, and mood. While on the surface its mechanics might seem similar to those of *The Sims*, *This War of Mine* uses it to sharply juxtapose its grim environment, one fraught with the constant threat of death and real-war association.

As Brendan Frye, editor-in-chief of *CGMagazine*, suggests: "*This War of Mine* is easy to understand. Even watching someone else play will give them an idea of what is going on. These [empathy games] are games that anyone can understand, and it is through the experience that they will know why these games matter."

There is no shortage of empathy games tackling different, stigmatic themes: *Depression Quest* looks at one of the most widespread and taboo topics in mental health; *Ether One* guides the player through reconstructing the memories of a patient with dementia; *Dys4ia* explores gender dysphoria.

Thematically, they touch upon current social movements, family situations, or struggles that most people have, at the very least, a preconceived thought or association with. These become emotional anchors; ones that ground the player in the subject matter through a shared connection and evolve from there.

Now, more than ever before, gaming has transcended its 8-bit roots into the realm of kinesthetic learning, with the ability to inform not only games, but society at large. With immersive environments and storytelling, these games become a powerful empathy tool – or, in more relevant terminology, a playable version of a journey map. Consider again, for example, *That, Dragon Cancer*. From initial diagnosis to tragic loss, both the physical and emotional journey of childhood cancer is explored. How could a physician use this experience to transform the care process? How could a healthcare supply manufacturer create intuitive product offerings that alleviate in-home strain?

Above and beyond an informed perspective, it becomes an informed solution. Now imagine it as a tool in any number of industries requiring a little understanding. Could world leaders experience war from the civilian point of view in order to make wholly informed political decisions? How about parents gaining insight into the mind of a young transgender child?

Peruse the internet, and you can already find social work websites talking about the use of games in therapy; nursing schools using simulations like VitalSims for training; doctors practicing virtual surgery; and first person shooters used in military programs. Using these applications for emotional understanding becomes a natural next step. From the micro to the macro level, the individual to society, it may be one of the most powerful tools we have for encouraging user-centered principles.

The question is, are we ready to play? ////

Esther Rogers is the managing editor of MISC. *She is based in Toronto, Canada.*

John Wither is a creative strategist and writer at Idea Couture. He is based in Toronto, Canada.

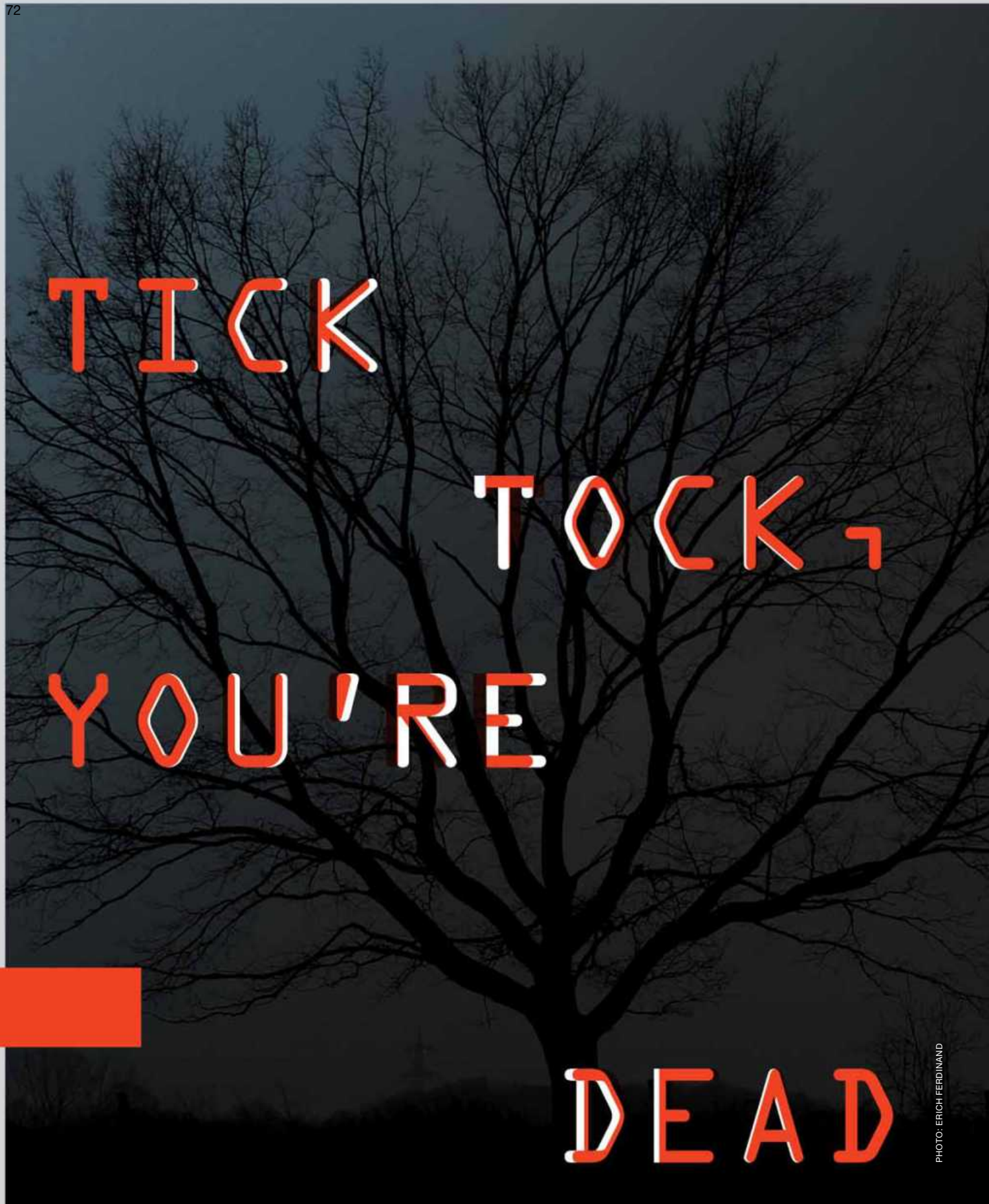


PHOTO: ERICH FERDINAND



BY CAROLINE LEUNG

GAME DEVELOPED
BY JONATHAN LEVSTEIN

Heartbeat echoing in your ears, you answer a series of intensifying questions that try to discern what you're willing to do to save what you cherish most. Is it an object? A memory? A living thing? Surely, if it means so much to you, you've already decided.

Haven't you?

This is the premise of *Tick Tock*, a narrative gaming experience developed exclusively for *MISC*. As an experiment, it looks to induce participants into a state of anxious discomfort – a state of crisis, one monitored before and after the session on a scale from one to one hundred. In 60 seconds, participants must name what they cherish most – an object, memory, or living thing – and attempt to protect it from destruction. The subsequent questions dictate whether they would rob a store, cut off a limb, harm another person, murder, or die in order to save it; growing in severity with each passing pulse.

But how do we define worth? In base terms, it's the paralleled degree of sacrifice. If it's a material handbag, it's what you're monetarily giving up. If it's biological offspring, it's what you'll surrender in the corporeal sense. Mothers will lift pickup trucks to save their babies, and Abraham will hike up Mount Moriah with Isaac. By that logic, the more replaceable the cherished object is, the less we are willing to do for it. This statistically aligns with the experiment's results, with no participants willing to cut off a limb, kill someone, or die for their respective material possession.

Among the material things that are nonetheless precious to us, they're often heirlooms or first editions. However, they also rate high in dependability: Objects require nothing of us, so there's nothing to be lost in exerting high degrees of reliance, to the detriment of our rational thinking and neuro-chemical balance. An addict undergoing withdrawal will find it easier to comprehend robbery or even murder for a hit. Transitively, while participants who chose a material possession ranked the lowest in overall post-test anxiety levels with 48%, the percentage itself suggests an inherent dependency and discomfort in loss. Two people even went as far as to say they'd harm someone for their object.

Memories may be the most irreplaceable option, but hold the least amount of stakes for survival. Michel Gondry's *Eternal Sunshine of the Spotless Mind* explores the possibilities of selective amnesia. The patients who undergo the memory erasure procedure awake the next morning as though nothing's happened. There was no loss to be processed, as there was no point of contrast. Of *Tick Tock*'s participants, memory ranked lowest as a chosen option, with "soul," "youth," and "innocence" as responses.

However inconsequential to our physical wellbeing, memory is the crux of our personalities. Sacrificing a memory may seem the easiest option compared to a more tangible material or living thing, but in the eyes of others, could be seen as the most selfless sacrifice of all. As such, even though a precious memory was chosen the least amount of times overall, participants' dependence on it as a fundamental characteristic of who they are elicited post-stress scores of 66, 79, and 87 respectively.

Unsurprisingly, the majority of *Tick Tock*'s participants chose a living being for what they cherish most. But, more importantly, it also registered the most drastic responses, with half of the participants willing to eventually murder and die for their parents, pets, children, or significant others (all sample responses). Indeed, what we value and what we are willing to do for the people we love is one of the most telling things about ourselves – akin to our fears, what makes us laugh, and our own sense of pride and shame. They speak to our past, present, and future; what we consider important, and in turn, how important we are to that someone else. Even the mere thought of not being able to see the ones we love for an extended period of time is enough to create a cataclysmic response in people, and it shows. Averaging 23 participants' post-test stress results, those who chose an organic being registered an 84.7 – or, severe emotional discomfort and anxiety.

Given only 60 seconds to decide, one doesn't have very much time to consider the moral weight of their choices. Surprise is an imperative part of defining crisis, and with it, its connotations of fight-or-flight. Time sensitivity reinforces instinctive honesty, or it could very well go the other way, and we can cite the lack of rational thinking behind the decision.

Regardless of cause, of the total number of participants, 58% weren't able to finish *Tick Tock* in time, despite the timer clearly presented on-screen – and the consequences that come with it. If participants were unable to finish within the allotted time, the thing they cherished most was instantaneously destroyed. Then again, it's never been human nature to anticipate for the worst, even when we can see it sloping down a wall-sized graph or counting down on a screen (recant climate change, Greece, or any economic bubble).

Ultimately, crisis is a matter of subjectivity and perspective, even if its effects are objective and inarguable. Despite the contrivances of *Tick Tock*, participants were able to trick themselves into a particular state of mind, providing that the right emotional triggers were in place. We are only as exempt to crisis, and the forces outside of our control, as the things we hold most dear. ////

Caroline Leung is the editor of MISC *and a writer and editor at Idea Couture. She is based in Toronto, Canada.*

Jonathan Levstein is a developer currently based in Kyoto, Japan.



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Customer Experience Through the Lens of Organizational Growth

As your organization grows and changes, crises of leadership, consistency, and coordination among others can arise. It's time to recognize the impact organizational growth has on customer experience – and do something about it.

BY CHEESAN CHEW

Customer experience is more in the limelight today than ever before. Organizations are placing increasing emphasis at all levels on understanding the customer in order to better deliver service, product, and experiences that exceed expectations, provide delight in the moment, and elevate the experience reputation of a brand. Customer-centricity is key to success today, but is also complex in that centricity requires an understanding of the ecosystem within which customers exist – from the increasing use of data to drive predictive experiences, to cross-brand experiences that result in (rightfully) unforgiving, relentless customer expectations.

This urgency to deliver on customer experience mandates has organizations in a tailspin, and justifiably so. Customers of today are not the customers of yesterday. New entrants into nearly every industry from retail to healthcare, financial services to auto, are using experience to differentiate in the market. As a response, organizations are investing heavily in customer research, mapping journeys, and creating service concepts. These efforts to take an outside-in approach are the right first steps, but many organizations struggle with a fundamental understanding of who they are: their character and culture, and where they are in their organizational maturity. An inside-in look is the critical next step.

As customer journeys and ecosystems are used as tools to design customer-centric experiences, understanding an organization's ecosystem, where they are on their journey, and the people and capabilities in place to deliver on those experiences are foundational to delivering on customer experience visions. And while each organization, like customers, are unique in their history and context, considering where they are in their organizational maturity can be a first step in understanding how customer experience can be delivered.

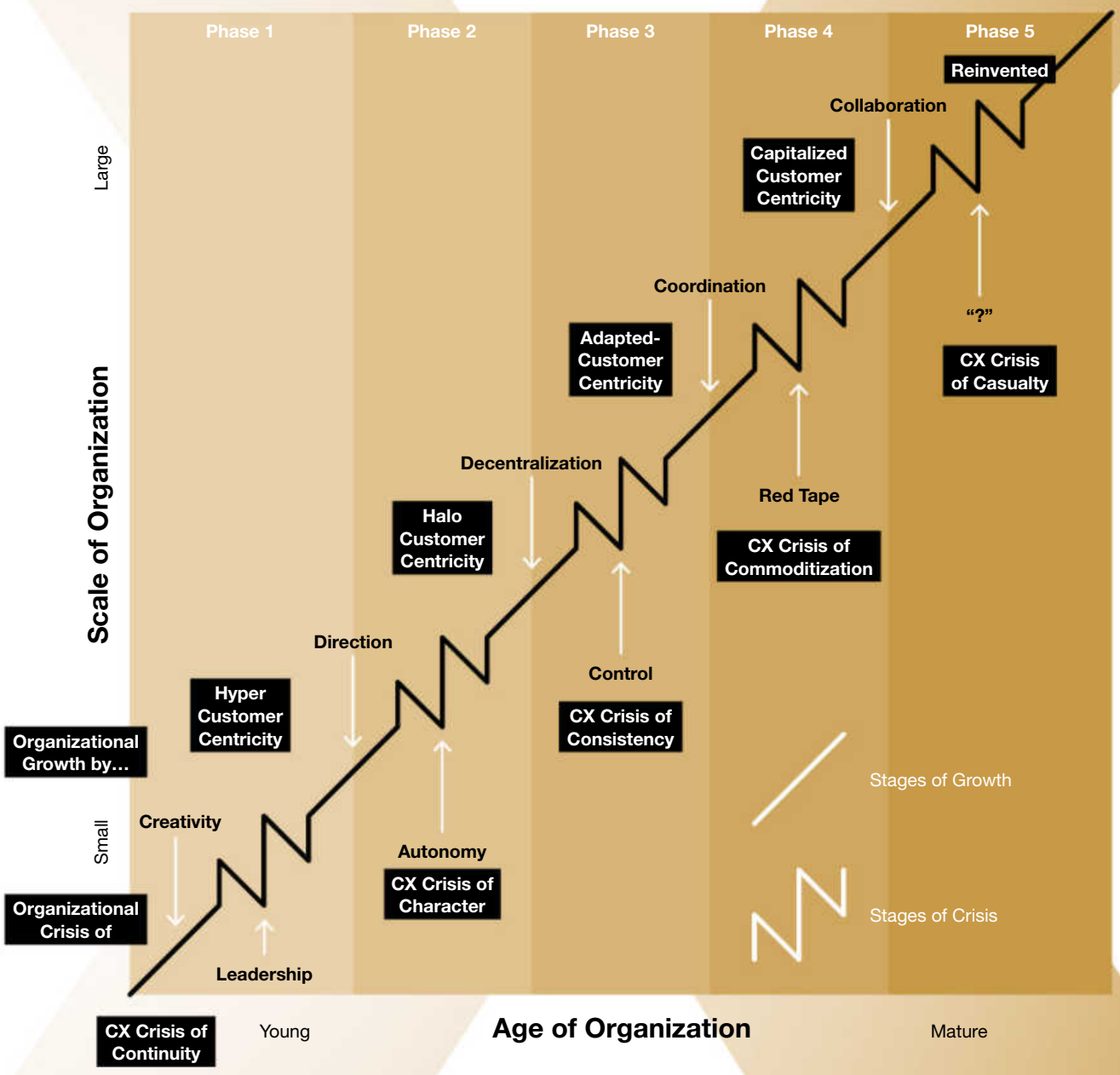
In the evolution-revolution model of organizational maturity model (first published in *Harvard Business Review* in July–August 1972 and later revised in May–June 1998), professor of management and organization Larry E. Greiner describes key stages of growth: highlighting characteristics of the organization as they grow within each phase (evolution) and at those times of crisis when they move from one stage to the next (revolution). The revolution phases can cause significant crises in customer experience. While many organizations don't follow a linear path, it's a useful exercise for those tasked to deliver on CX to be deeply aware of their organization's culture, character, and where they are in their organizational journey.

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As a crisis of leadership emerges, organizations are vulnerable to experience gaps that can make or break their trajectory.
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	Start Up	Early Growth	Growth	Maturity	Revival
Organizational Growth by …	**Creativity.** An intense focus on creating new products and services. Lack of resources requires ingenuity and creative solutions.	**Direction.** For start ups making it to this phase, functional structure is introduced to gain efficiencies.	**Decentralization.** Greater responsibility is given to distributed functions, regions, and entities. Greater autonomy leads to localized growth.	**Coordination.** Decentralized functions are merged. Centralization occurs to drive efficiency and profit. Justification at headquarters is a part of activities.	**Collaborative.** Organizations are characterized by problem solving and innovation, via matrix structures, simplified formal structures, and experimentation.
Customer Centricity	**Hyper.** Founders (leaders) are very close to customers, reacting and building with heightened sensitivity to customer responsiveness.	**Halo.** With the introduction of processes to scale, there is an intense effort to keep the hyper centric yesterdays alive, with founders / leaders one-step removed.	**Adapted.** In this model, responsiveness to customers is localized and distributed with individual entities responding as they see fit.	**Capitalized.** Organizations who create customer experiences that scale successfully work hard to build CX into their DNA.	**Reinvented.** Leaders understand the need to stay ahead of the curve and lead with CX as core value proposition, looking outside their walls and to the future for inspiration.
Leads to an Organizational Crisis of… (L.Greiner)	**Leadership.** As organizations experience success and as volume of service and product grow, informality and lack of process can lead to confusion and the need for a strong leader to guide into the next stage – which may or may not be a founder.	**Autonomy.** Leaders, channeling efforts into efficient growth can simulta-neously alienate employees, who often feel they are closer to customers and feel torn between following directives and taking their own initiative.	**Control.** With decentralized management, top leaders feel a lack of control over diverse operations. This is at odds with local field operations who prefer to run their own show.	**Red Tape.** Too many systems, processes, and procedures create bureaucracy and tension between HQ and field units. Procedures take precedence over problem solving and innovation, and customer experience suffers.	**Existence.** An inability to innovate internally leading to exit / sale consideration as a crisis in this phase.
Customer Experience (CX) Crisis of…	**Continuity.** As a crisis of leadership emerges, organizations are vulnerable to experience gaps that can make or break their trajectory. There isn't a cushion scale or history built with customers.	**Character.** As organizations put structures in place, the definition and delivery of experiences can often lose their start up charm and intense customer focus.	**Consistency.** Customers may have diverse experiences as decentralization creates autonomy with plans, money, technology, and personnel.	**Commoditization.** Experiences delivered via policies and procedures, if not created with customer centricity in mind, can lead to stagnation in experience. This, coupled with changing customer habits, behaviors, and influences, can lead to decline.	**Casualty.** Despite a focus on innovation, with too many priorities in an increasingly complex structure, organizations may experience paralysis and be unable to act and revive CX through reinvention, rendering them unable to compete.
Examples Of Success	Uber, The Honest Company	Airbnb, FedEx (1980s/90s)	Salesforce, Amazon (Zappos)	Singapore Airlines, Nordstrom	Apple

CX Through Organizational Growth

Adapted from L.Greiner (HBR 1972, 1998)



The phases described above are not necessarily linear or as discreet as depicted. Organizations are complex and messy, and their resulting customer experiences can be as well if not considered with vision and discipline. Couched in an intimate understanding of an organization, CX leaders can design salient ethnographic and design research with customers, build experience journeys that are simultaneously customer- and organization-centric, and create resonant service and product platforms that drive organizational growth and ultimately, enterprise value. ////

Cheesan Chew is the chief CX officer and SVP at Idea Couture. She is based in Toronto, Canada.

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Inspire Innovation

Whether you're a big boss looking to shake up your innovation team or a millennial employee whose repertoire of classic cinema is limited to *Five Hundred Days of Summer* or the latest TEDTalk, movies can be one of the most powerful inspirations for creativity and change. Here are five films that no self-respecting innovator should miss.

Illustrations by Jennifer Backman



Blade Runner

Directed by Ridley Scott (1982)

If you believe the hype about self-driving cars, big data, and A.I., you probably think that the future will be a rosy place where all of our unarticulated needs will be met. It won't. It will most likely suck. Based on Philip K. Dick's 1968 novel, *Do Androids Dream of Electric Sheep*, Los Angeles 2019 is a dark, dystopian world where technology threatens our very understanding of what it means to be human. For innovation teams, it's a great lesson in what the robots will do to us after we build them with working brains and just how much we'll need raincoats in the future.



The Man in the White Suit

Directed by Alexander Mackendrick (1951)

This film from Ealing Studios stars Alec Guinness, a young chemist who invents an indestructible, everlasting fiber that repels dirt and lasts forever. At first he is hailed as a genius, but when his employers in the textile industry realize the disruptive impact this would have on their business, things get ugly for the idealistic inventor. He becomes the target of the industrialists and trade unions, who both realize that such a product would render their factories and jobs obsolete. It is a classic study of the nature of technological disruption, laying bare the innovator's dilemma of creating new solutions that benefit the user but threaten the established infrastructure.

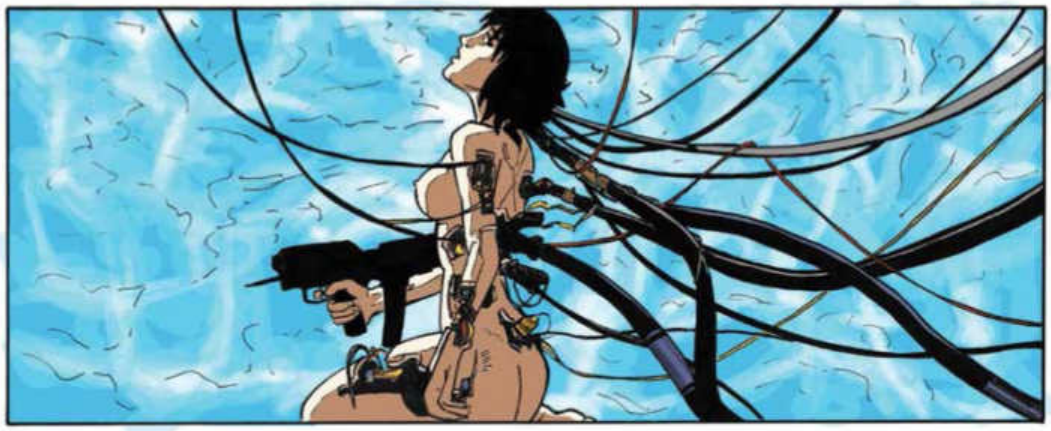




Her

Directed by Spike Jonze (2013)

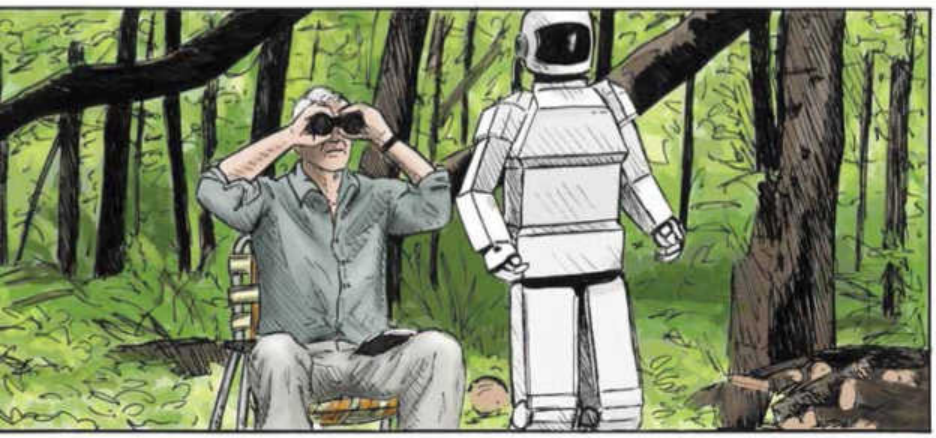
Enough with the recreations of a Jetsons gee-whiz future – they're all too automated, shiny, and clean. Instead, Joaquin Phoenix gives a subdued performance as a man who falls in love with his artificially intelligent OS. Besides exploring the possibilities for intimacy between humans and machines, Jonzes' film introduces a new design aesthetic highlighted by spaces that are warm, playful, and empathetic. To refresh your innovator's inspiration palate, immerse in a future that places human experience at the core of product and service design.



Ghost in the Shell

Directed by Mamoru Oshii (1995)

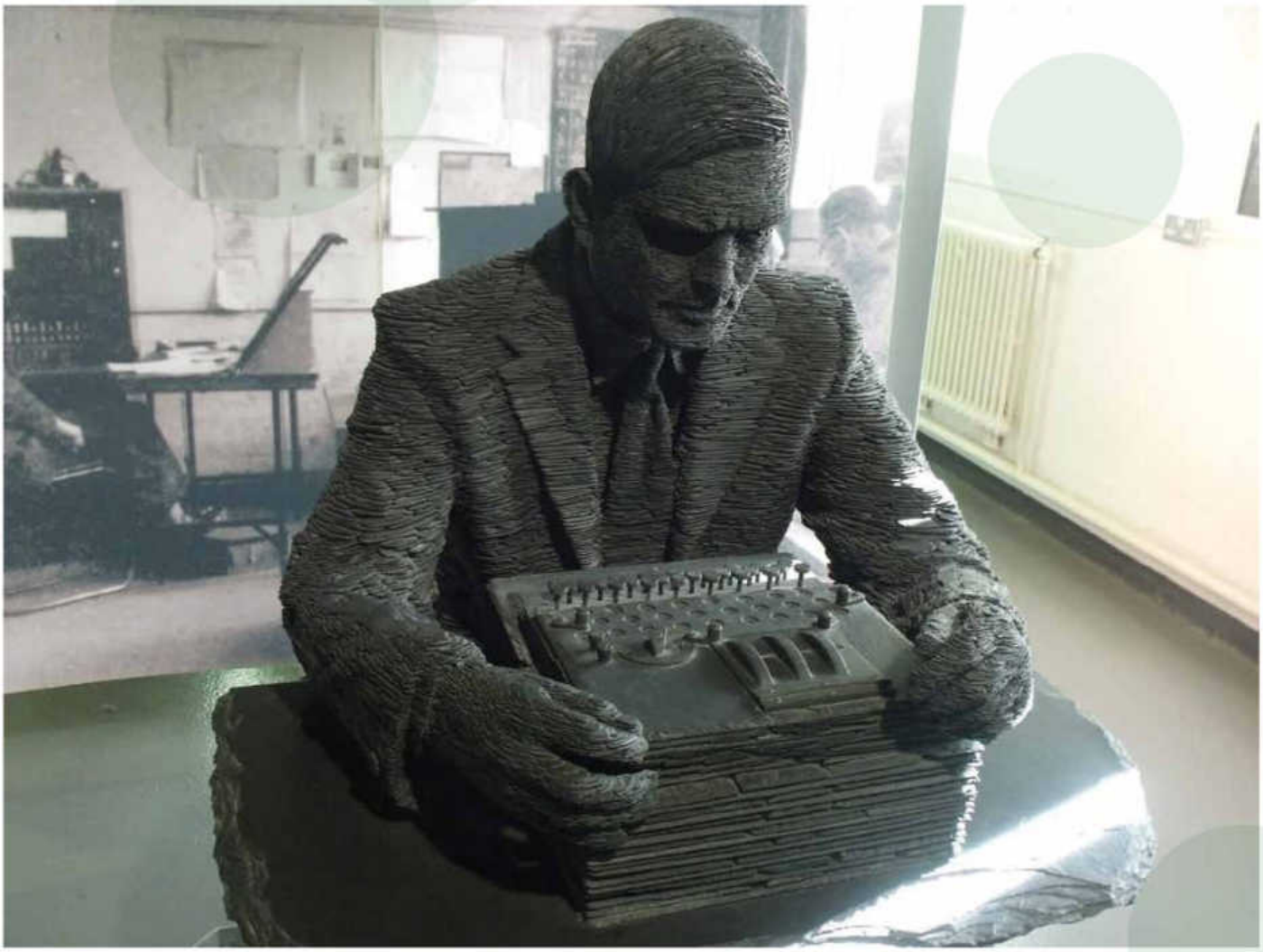
One of the greatest anime films of all time, Mamoru Oshii's prophetic sci-fi masterpiece follows a police duo chasing a talented hacker through a world where humanity may access 'ghost' networks of cybernetic bodies (shells). What starts as a futuristic cop film rapidly spirals into a subversive world of political intrigue and complex artificial intelligence. Through explorations of sentience and body-swapping, the film explores complex themes around gender roles and self-identity in an age where the lines are blurred between technology and biology. This is definitely one for the wearables crowd.



Robot & Frank

Directed by Jake Schreier (2012)

Schreier explores the near-term future through a story that's a critical exploration into emerging technology, all told through the humorous lens of an elderly ex-cat burglar who uses his robotic companion as his heist accomplice. To encourage millennial innovators to look beyond their demographic for insight before interaction design, this film highlights the benefits of deeply understanding the underserved needs of an aging population.



The Value of Perseverance, and Other Lessons Gleaned from Crisis

BY RICHARD PALMER

If you have any interest in chaos theory, then you will know that the level of instability and chaos in the world every day is both beguiling and daunting. Nothing is ever the same or entirely repeatable, and consequently nothing is truly predictable.

If we take this framework of the world, and apply it to the journey of innovation, it does not surprise that many scenarios where the expectations (predictions based on current understandings and experiences) do not match the actual events that we encounter. You could argue that we should expect our experience of the world to be unpredictable, which is easier said than done; enter the world of strategic foresight. Sometimes the significance of these chaotic occurrences is so great that they throw the entire plan to pieces, and any of its expectations of success into question. In the startup world, this could be the time to pivot. In a large corporation, you would be dealing with crisis and change management as plans are altered and necessary measures are taken to steer the course of the business in another direction – hopefully in time to meet the challenges. (Think Kodak, RIM, or Nokia.)

If change is an option, this is all very well and good. However, sometimes there simply is no alternative and the choice is stark; either giving up or persevering regardless, fighting for survival. Whilst this is neither pleasant or desirable, such circumstances can sometimes lead to some of the most significant innovations. The expression "necessity is the mother of invention" is well understood, but not always so well executed. When the failure to innovate or to change is so great and changing direction is not conceivable, then we are stuck with trying to find a way to meet the same objectives differently.

War is a great example of a crisis that demands problem-solving the unpredictable with extreme consequences; never was the term "innovate or die" more appropriate. There are many great examples of innovations coming from this intense need to invent a solution that does not yet exist. My favorite is the incredible challenge of solving the Enigma code, used by the Germans during World War II to send commands and information to their advancing armies. The code, which was changed daily, seemed unbreakable with 158,962,555,217,826,360,000 variations. The importance of solving this challenge, and its extreme and real urgency, gave this problem some unique characteristics that we can still learn from now.

The problem was arguably the most significant single challenge during the war effort. The team assembled in Bletchley, England knew only too well the enormity of the problem they faced, and how critical success was; lives depended on it. The UK government employed Alan Turing, a brilliant and obsessive mathematician, to lead the efforts to decipher the code. Turing had a vision of creating a "universal machine" that could make calculations and follow instructions on the basis of a program of commands. Although this vision wasn't altogether shared by his peers, Turing's single-minded passion for solving this critical problem credited him with cutting the war short and potentially saving millions of lives. The electromagnetic deciphering machine was called the Bombe. After the war, Turing went on to develop two of the world's first-ever computers, triggering a computing technological revolution.

While Turing is credited with the success, and rightly so, his team made a significant contribution. Brilliant yet arrogant, Turing was fundamentally a loner and not known for making friends or inspiring followers. However, his incredible dedication and perseverance to what seemed to be insurmountable problems created a momentum and passion that spread throughout the team – as his crazy vision started to seem like the only way to survive the military power of the German armies.

In a completely different world with a very different challenge, the incredible story of Chinese fisherman Sun Jifa teaches us another lesson about passion and determination in crisis. Sun Jifa had the misfortune of losing his hands in an explosion intended for fishing. He desperately needed his hands to be able to work on his family farm, and could not afford medical prosthetics. Over the following eight years, he diligently and obsessively invented his own semi-robotic limbs crafted out of metal that not only allowed him to gesture, but also to grip and hold with mechanical pulleys that he designed himself. His invention was so successful he has started making customized metal limbs for other amputees and has now manufactured over 1,000.

// **In many cases, it's not that the genius doesn't exist when the going is smooth; it's just that it doesn't need to.** //

In Sun Jifa's story, he is motivated by the need to feed his family. In Turing's story, he and his team were motivated by a threat to the lives of their fellow citizens. As Horace says, "adversity reveals genius, prosperity conceals it." In many cases, it's not that the genius doesn't exist when the going is smooth; it's just that it doesn't need to. Genius is dangerous. Ideas that are genuinely new are awkward and difficult to deal with. It's only when our survival is threatened by the status quo that we have to allow people to throw away the rulebook and start again.

On a much less dramatic scale, I myself was once faced with what, at the time, felt like a huge crisis. I had been working on a new material with my colleague at university and filed patent applications around our invention. I had sold my house and was close to raising much-needed finances to take the new material to market. Then one evening, while browsing alternative patented work, I discovered to my horror an already existing Japanese patent that perfectly described and effectively nullified all of our work. My colleague and myself spent the next month in the lab, finding another way to create our material that was both unique and better than our existing work, which, thankfully, was successful. We had previously made passing comments in this direction, but had not had the urgency or need to try to make it work. This crisis gave us the need.

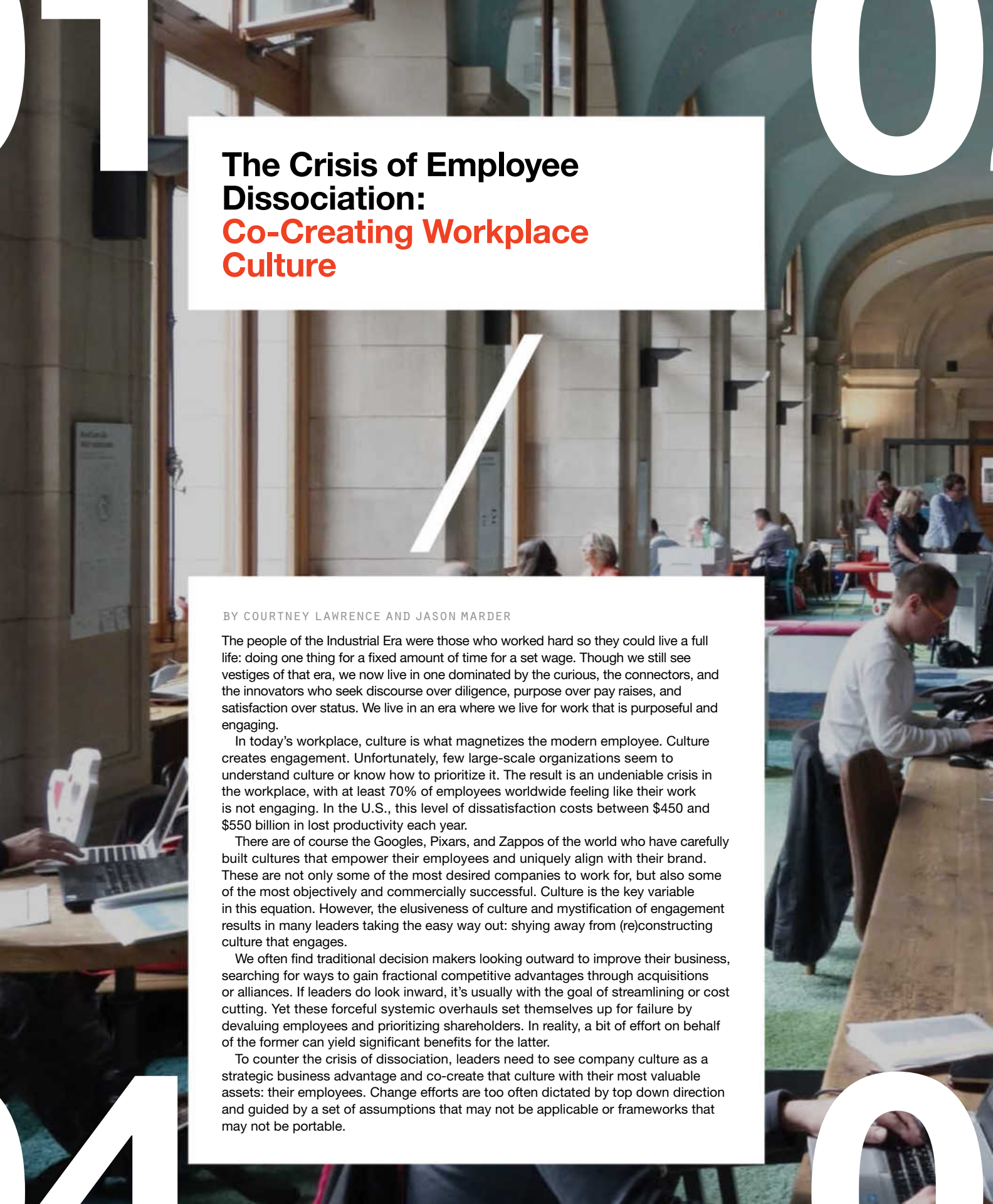
So what do these stories tell us?

In times of crisis, the importance of passion, vision, and dogged determination are paramount. If visionary leaders can be given the freedom to go with their instincts, even if it seems crazy or pointless at the time, support them and give them enough space to incite the necessary momentum. Innovations need mavericks. While they can be dangerous and disruptive, in times of turbulence, there is actually more danger in the status quo.

Brilliance and passion finds followers. All great visionaries need a team to support them – it's the momentum of the team that will drive the solution home.

Crisis sparks the survival instinct. We can't and shouldn't recreate crisis, but don't be afraid of it when it comes – because in these chaotic times, it is sure to. Embrace it and empower your teams. It could be crisis that saves you. ////

Richard Palmer is chief resident entrepreneur at Idea Couture. He is based in London, United Kingdom.



The Crisis of Employee Dissociation: Co-Creating Workplace Culture

BY COURTNEY LAWRENCE AND JASON MARDER

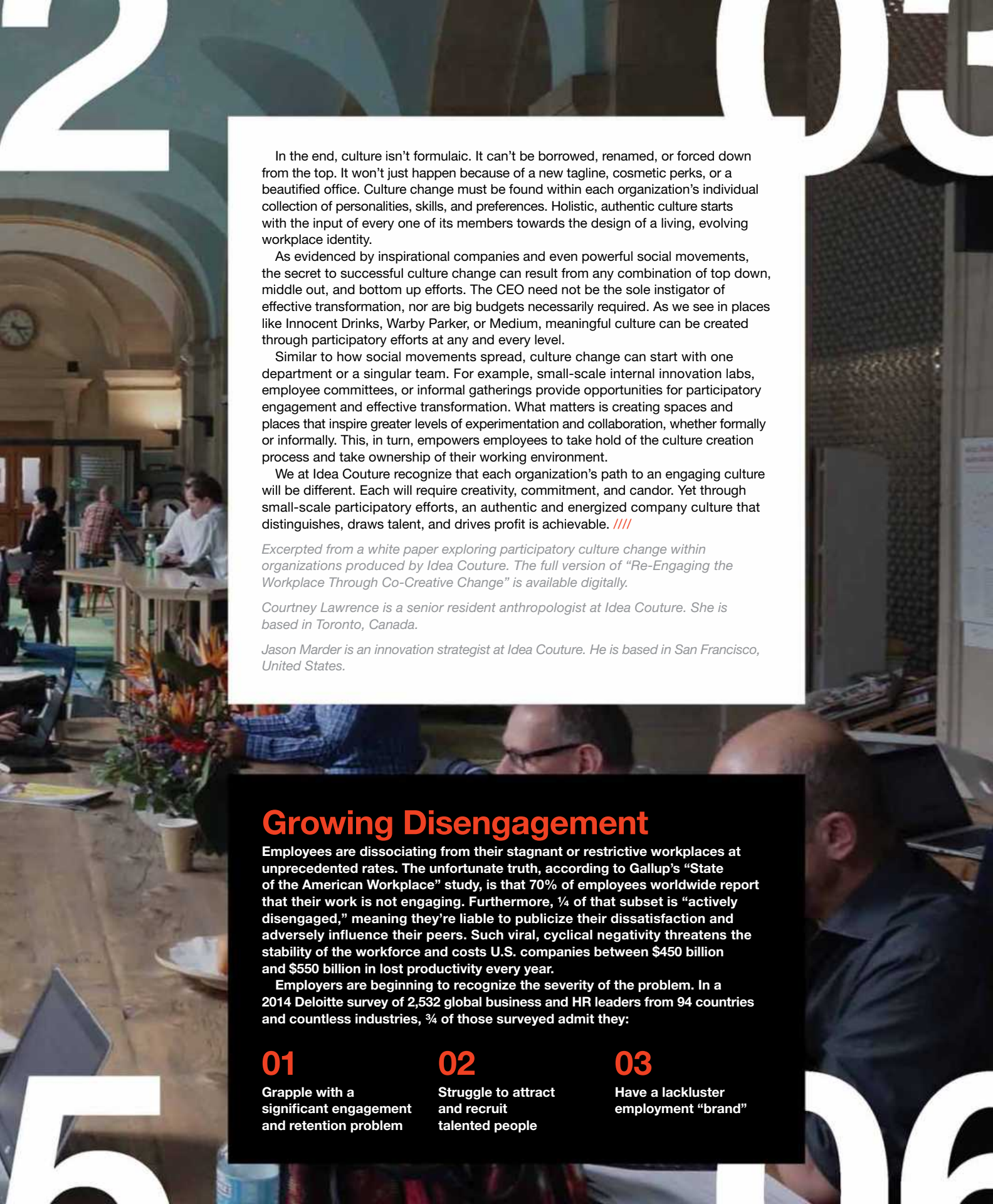
The people of the Industrial Era were those who worked hard so they could live a full life: doing one thing for a fixed amount of time for a set wage. Though we still see vestiges of that era, we now live in one dominated by the curious, the connectors, and the innovators who seek discourse over diligence, purpose over pay raises, and satisfaction over status. We live in an era where we live for work that is purposeful and engaging.

In today's workplace, culture is what magnetizes the modern employee. Culture creates engagement. Unfortunately, few large-scale organizations seem to understand culture or know how to prioritize it. The result is an undeniable crisis in the workplace, with at least 70% of employees worldwide feeling like their work is not engaging. In the U.S., this level of dissatisfaction costs between $450 and $550 billion in lost productivity each year.

There are of course the Googles, Pixars, and Zappos of the world who have carefully built cultures that empower their employees and uniquely align with their brand. These are not only some of the most desired companies to work for, but also some of the most objectively and commercially successful. Culture is the key variable in this equation. However, the elusiveness of culture and mystification of engagement results in many leaders taking the easy way out: shying away from (re)constructing culture that engages.

We often find traditional decision makers looking outward to improve their business, searching for ways to gain fractional competitive advantages through acquisitions or alliances. If leaders do look inward, it's usually with the goal of streamlining or cost cutting. Yet these forceful systemic overhauls set themselves up for failure by devaluing employees and prioritizing shareholders. In reality, a bit of effort on behalf of the former can yield significant benefits for the latter.

To counter the crisis of dissociation, leaders need to see company culture as a strategic business advantage and co-create that culture with their most valuable assets: their employees. Change efforts are too often dictated by top down direction and guided by a set of assumptions that may not be applicable or frameworks that may not be portable.



In the end, culture isn't formulaic. It can't be borrowed, renamed, or forced down from the top. It won't just happen because of a new tagline, cosmetic perks, or a beautified office. Culture change must be found within each organization's individual collection of personalities, skills, and preferences. Holistic, authentic culture starts with the input of every one of its members towards the design of a living, evolving workplace identity.

As evidenced by inspirational companies and even powerful social movements, the secret to successful culture change can result from any combination of top down, middle out, and bottom up efforts. The CEO need not be the sole instigator of effective transformation, nor are big budgets necessarily required. As we see in places like Innocent Drinks, Warby Parker, or Medium, meaningful culture can be created through participatory efforts at any and every level.

Similar to how social movements spread, culture change can start with one department or a singular team. For example, small-scale internal innovation labs, employee committees, or informal gatherings provide opportunities for participatory engagement and effective transformation. What matters is creating spaces and places that inspire greater levels of experimentation and collaboration, whether formally or informally. This, in turn, empowers employees to take hold of the culture creation process and take ownership of their working environment.

We at Idea Couture recognize that each organization's path to an engaging culture will be different. Each will require creativity, commitment, and candor. Yet through small-scale participatory efforts, an authentic and energized company culture that distinguishes, draws talent, and drives profit is achievable. ////

Excerpted from a white paper exploring participatory culture change within organizations produced by Idea Couture. The full version of "Re-Engaging the Workplace Through Co-Creative Change" is available digitally.

Courtney Lawrence is a senior resident anthropologist at Idea Couture. She is based in Toronto, Canada.

Jason Marder is an innovation strategist at Idea Couture. He is based in San Francisco, United States.

Growing Disengagement

Employees are dissociating from their stagnant or restrictive workplaces at unprecedented rates. The unfortunate truth, according to Gallup's "State of the American Workplace" study, is that 70% of employees worldwide report that their work is not engaging. Furthermore, ¼ of that subset is "actively disengaged," meaning they're liable to publicize their dissatisfaction and adversely influence their peers. Such viral, cyclical negativity threatens the stability of the workforce and costs U.S. companies between $450 billion and $550 billion in lost productivity every year.

Employers are beginning to recognize the severity of the problem. In a 2014 Deloitte survey of 2,532 global business and HR leaders from 94 countries and countless industries, ¾ of those surveyed admit they:

01
Grapple with a significant engagement and retention problem

02
Struggle to attract and recruit talented people

03
Have a lackluster employment "brand"

Design Research by Remainder

BY DR. RYAN BROTMAN

I stood at the front of a dimly lit boardroom at the end of a pitch to provide design research services. A projector beamed the final slide with the word “Questions” in 144 point Helvetica font. The audience, a cadre of senior managers from various departments, remained silent. I had learned long ago to not disturb this silence. It was a sign of reflection – and hopefully of a strong presentation. Then the silence broke, and a customer insights director asked, “So what makes you any different from any of the other ethnography shops out there?”

This question has become commonplace. So much so that it led me to a thought experiment presented here. It begins with a design provocation: Design research is a commodity.

To address this provocation, lets take an adversarial design approach and perform an exercise in reconfiguring remainders. This activity begins with revealing controlling forces to articulate the current state of system influencers. Upon dissecting the current state, the act of reconfiguring remainders can begin. This activity combines science scholar Lucy Suchman’s tactic of reconfiguration with political theorist Bonnie Honig’s political concept of a remainder. Reconfiguration is the interpretation of a current existing system, followed by reconfiguring system components to explore new instantiations. The remainder, in the context of political science, refers to, “people, practices, and discourses that are overlooked or written out of institutions, policies, legislation, and theories in the attempt to produce consensus that lacks disruptive difference.”

PHOTO: TAKAHIRO HAYASHI

Commoditizing Design Research

Before delving into assumptions supporting design research as a commodity, I'm going to create some guardrails for the discussion. The provocation deals with the market phenomenon of commoditization. Hence our definition is limited to the two most common industry objectives and methodology for design research: (1) Understanding people, generally through the use of ethnographic inquiry; (2) Assessment and refinement of concepts through user tests, the methodology of which varies depending on the fidelity of prototypes and if the assessment is formative or summative. Additionally, since we began with an anecdote on item (1), this examination skews towards this category.

A primary driver of commoditization is a decrease in entry barriers that result in a hyper-competitive market place. During the last 15 years, a broad dissemination of knowledge and methods associated with ethnographic design research has occurred. A market influx of competitive service providers ranging in size from two person practices to larger agencies has increased service provider options. Additionally, many clients have internalized this capability, reducing the TAM of fuzzy front-end design research. However, this reformation of the competitive landscape is only one half of the equation. A lack of industry innovation fills in the other half. In service of this argument, I'm proposing three assumptions that are the primary obstructions for design research service innovation.

Hegemonic Methodology

IDEO, Frog, and a number of other first-to-market movers have done a fantastic job at solidifying a narrative of design research as applied ethnography to engage customers, create empathy, and make sense of wicked problems. As a long-time practitioner working within the constructs of this narrative, I have seen the value of this proposition firsthand with regards to framing innovation. I've also experienced the challenge of brokering client buy-in when pitching fuzzy front-end design research studies that deviate from this cognitive model, but may provide a better fit with stated research objectives.

The strength of this narrative has forced providers of design research to offer me-too services to meet client expectations. This normalization has served market leaders well. Unfortunately, it has also stifled service innovation due to the hegemonic influence of the narrative, which instills fear in companies to deviate from customer expectations.

Accessibility

Most design schools and design agencies with an ethnographic component define ethnography as talking to people and taking pictures. This proposition is enticing, as it democratizes the process of insights generation. It also supports commodification as it lowers the perceived barrier of entry for competition. As a product of a research-centric design school, I can't totally discount this assumption. I have found that depending on the scope and objectives of a project, ethnographic practitioners with minimal training can generate insights.

However, the danger of this assumption is that it confuses the medium with the message. Interview notes and photography captured in the field are a data collection medium. They are not a critical perspective or the insight that guides innovation agendas. I've worked with both designers with various degrees of training in ethnography as well as PhD anthropologists, and there is a difference in the quality of insight production. Within ethnographic field work, the researcher is also the instrument of analysis; hence the critical perspective a researcher brings to bear on transcripts and photographs during sensemaking, which determines the entire outcome of the project. While a couple research courses and/or executive training in design research can produce appreciation of the process as well as an entry level set of skills to build from, these programs do not compare with the years of critical training in social theory and behavior analysis anthropologists employ to translate ethnographic information.

Affirmation

Within the context of product development, design research is conducted as a means of going from the unknown to a desired known state, often conjured in the form of a new capability or offering. This process is one of affirmation, in which each previous step informs the subsequent step, supporting a singular world view embodied as the new design thing.

This assumption commoditizes design research in that it narrows the application of the process to one of subtraction over time. While divergent thinking may take place, the end result is about reduction from many possibilities to a single possibility. However, many strategic planning exercises require exploration of multiple futures through scenario planning to understand confluences and bifurcations. Design, as a process of understanding – "what is not, but could be" – is well suited for such strategic programs, but rarely used.

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Ethnography produces insights about what is, while constructive design research produces insights about what could be."

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Reconfiguring the Remainder

These three assumptions define the current configuration of design research. Within this configuration, design research is methodologically hegemonic with heavy leaning towards ethnography; yet messaged within the market as practicable by anyone with very little training; and, finally, it is an affirmative process leading to a tactical, singular outcome.

Reconfiguration of the methodology assumption could include additional perspectives and methodologies. This reconfiguration only has value if inclusion can generate higher quality and/or a wider variety of insights. Placing issues of value measurement aside, a number of emerging practice domains represent opportunities for expansion. With the large volume of unstructured data milling about digital clouds, the use of data analytics presents an opportunity to introduce a quantitative complement to ethnographic framing. Another trajectory is the transformation from observational to interventionist sensemaking. Constructive design research embodies this transition through creation and deployment of artifacts as stimuli to reveal hidden assumptions, practices, and needs, and test assumptions about the future. The value in this research is its complement to ethnography. Ethnography produces insights about what is, while constructive design research produces insights about what could be.

With regards to the second assumption of practitioners, the one avenue previously discussed is to increase the quality of researchers. This is the strategy my own organization takes by employing PhD anthropologists for field research. Other approaches are dependent on how organizations tackle the first assumption regarding method in order to expand serviceable research objectives. Design research problems are only becoming more complex in nature. Such complexity requires a pragmatic, or transdisciplinary, approach to research in which the background and experience of researchers should be determined based on the research objectives at hand. The examples of big data-supported and constructive design research require organizational structures and human resources that align with transformation agendas.

For assumption three, design as affirmation, both adversarial design as well as speculative design are two perspectives that remove affirmation. Adversarial design seeks to generate agonistic confrontation through the production of artifacts that represent the opposite of norms to provoke critical discourse. Amy and Klara, by designer Marc Böhlen, explores two assumptions regarding social interactions with robots. The first assumption is that robots should act pleasant. The two robots, Amy and Klara, become easily agitated, swearing at each other and people around them. The second assumption is that robots need and/or want to interact with people. Amy and Klara swear at people as they draw closer and ignore people who try to interact with them.

Speculative design create artifacts that allow people to experience multiple potential futures. For example, in the United Micro Kingdoms project, design researchers conducted foresight activities in which they envisioned a future UK divided into four regions. Each region represents extremes in social and technical values that the researchers use to craft a series of models of how each region would redesign transportation systems. The models do not represent future products or services. Instead, they embody sociocultural tensions within transportation systems as a means of facilitating strategic conversations on mobility, conservation, and disruption.

Towards Experiential Design Research

This provocation points towards a future where ethnography and other methodologies create research-oriented experiences that contribute additional insights about the present and potential futures. Gains in physical and digital prototyping tools reduce the costs of such programs. There is a power in interacting with an actual working graphical user interface, or being told off by a robot, or holding the scale model of what could potentially be your future car. This power comes from epochs of embodied evolution in which thoughts and feelings are irrevocably tied to our senses.

This vision of design research, however, is one potential future that I've crafted through the course of this dialogue – as one instantiation of things to come. In the spirit of reconfiguration in which this article is written, I invite you to imagine more. ////

Dr. Ryan Brotman is the co-head of wearable technologies at Idea Couture. He is based in Arizona, United States.



PHOTO: TAKAHIRO HAYASHI



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CONDENSATION AND OTHER MOMENTS

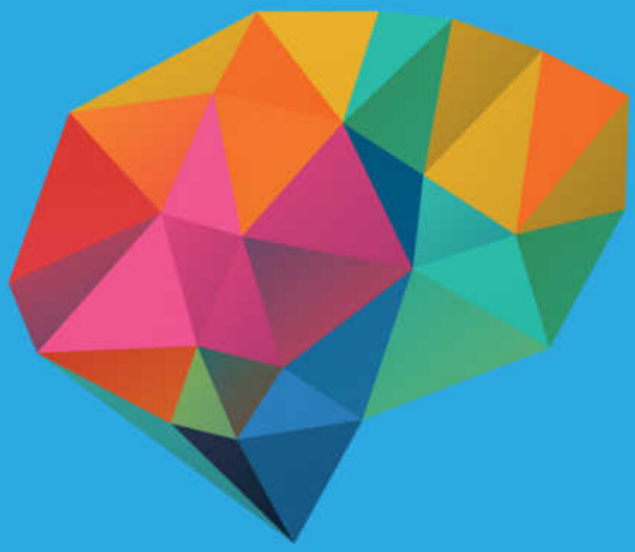
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BY: MATHEW LINCEZ
DESIGN: JEMUEL DATILES

"THERE CANNOT BE A CRISIS TODAY; MY SCHEDULE IS ALREADY FULL"

- HENRY KISSINGER

The 2014–2015 Ebola outbreak in Africa is a well-documented crisis whose impacts will continue to play out over generations. The UN and WHO now face criticism about the inadequate response to this virulent outbreak, despite early warning signs and assertions about the general lack of preparedness. Not surprisingly, it also took a while for the rest of the world to recognize the scale and severity of the crisis manifesting right before their eyes. Was this unimagined? Despite historic occurrences, organizational mandates, and statistical likelihoods, the early signals were largely ignored or not taken seriously until it was too late.

Virulent outbreaks are not the only type of crisis we face: Climate change has displaced record numbers of people from their homes and continues to cause immeasurable suffering. A global healthcare crisis is becoming exasperated by economic circumstances, increasing rates of chronic illness, and the demands of aging populations on systems. Latent crises loom on the edge of flipping from good to bad in an instant as drug resistant bacteria grow stronger and faster, and humans empowered with powerful synthetic biology tools conceive, design, and deploy malicious and unimagined life forms. Over-confident reliance upon modern day communications technology, fail safe systems, and institutions could mean catastrophe if they were suddenly switched off.

Strangely, we consume an abundance of movies, news, games, statistics, and media that depict a world in some form of crisis or another. We love indulging in the existential fantasy of virulent outbreaks, alien invasions, zombie apocalypses, terrorism, corruption, economic collapse, and natural disasters – the scenarios, facts, and fictions of how different types of crisis might unfold. Yet we are often and legitimately surprised by their actual manifestation and impact; we loathe the reality of a crisis when faced by it. Even though we train our imaginations for these events, we do not take them seriously enough to dedicate the time, energy, and resources required to be adequately prepared.

The next crisis is already here. It's just not evenly distributed.

As futurists, we share the responsibility to help individuals, organizations, and society become more resilient by sensing, imagining, anticipating, and preparing for the future. By helping avoid surprises, we reduce the negative impacts of a crisis by distributing the awareness, meaning, and future potential more evenly. Here is how it works:

1/ Scanning and synthesizing the weak signals, trends, and drivers that are shaping conditions for a crisis. By practicing foresight, we improve our sensitivity and ability to listen, learn, and anticipate crisis.

2/ Mapping the changes taking place – how signals, trends, drivers, and larger forces are interacting, and how they might evolve to shape and influence the conditions of crisis.

3/ Building possible, plausible worlds, and exploring wild cards and what-if situations that help us understand how the pre-conditions of crisis may unfold.

4/ Leveraging narrative, scenarios, and storytelling to bring future crises to life, allowing us to test choices and rehearse our actions within them.

5/ Identifying critical gaps and uncertainties related to our existing strategy, solutions, or capabilities in relation to crisis models and finding areas for improvement.

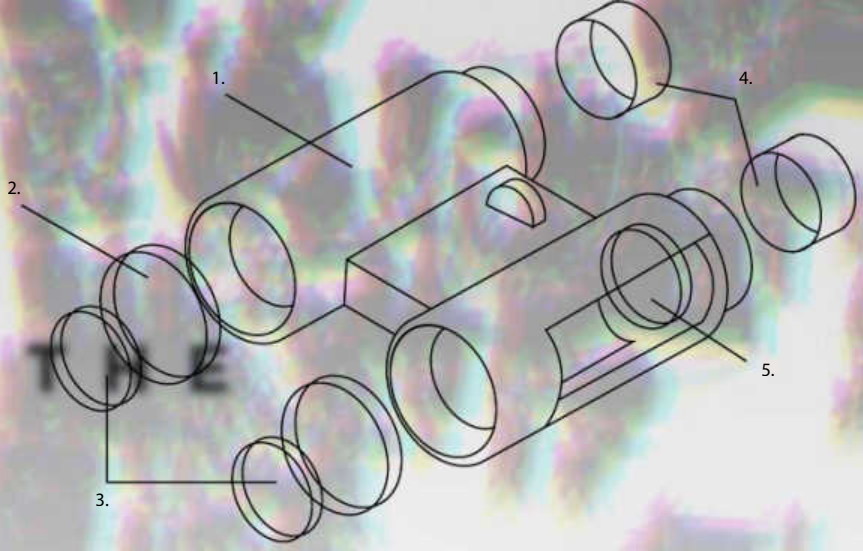
6/ Taking action by leveraging knowledge and insights about how we might experience a future crisis into new or refined strategies, solutions, and capacities.

7/ Starting over by refreshing our assumptions and approaches to future crises.

Foresight – or futures thinking – and crisis are quite compatible. To prepare and become more resilient in the face of crisis, we take a systematic approach to building high quality and functional forward views, developing and testing hypotheses about how different future crises might unfold so we can plan, rehearse, and prepare ourselves accordingly. Or at least that is the aspiration.

The following feature presents a spectrum of responses from fellow futurists to the question: What crisis are we ignoring and what can foresight do about it?

Mathew Lincez is the co-head of foresight at Idea Couture. He is based in Toronto, Canada.



TURNING THE FUTURE INTO CREATIVE FUEL





BY: NICOLAS ARROYO & RUNE TOLDAM

"OH YEAH, FOR THE TIMES THEY ARE A-CHANGIN'."

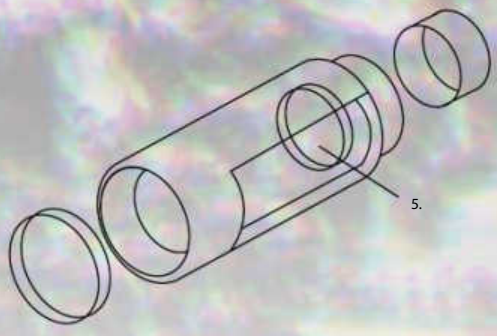
—BOB DYLAN

There is a great story from an old futurist magazine told by social entrepreneur Ernesto Sirolli: In 1860, a group of futurists and experts met to discuss and speculate about the future of New York City. The conclusion was unanimous. It was impossible for New York City to exist in 100 years. Why? They looked at numbers and figures and concluded that with the current curve of population growth, in order to transport people around the city, more than six million horses will be required, flooding the city with manure. In fact, the city was already drowning in it. Hopeless and clueless, these experts were convinced that this "dirty technology" – the horses – would end life and prosperity in New York.

But what happened? In less than 25 years, an unforeseen disruptive technology was created: the automobile. By the year 1900, there were more than 1,000 car factories across the US, rapidly revolutionizing transportation and our world at large.

Just like those futurists from 1860, we are constantly facing unexpected challenges that could threaten our future, today more than ever. Traditional systems of thought no longer define the way we live our lives and do our jobs. Religion, politics, and the economy no longer hold the certitude that they used to. Being able to look into the future in order to inform our present decisions is a growing necessity to thrive in the 21st century.

Organizations and businesses are not immune to this wave of change. One small company born in a garage can disrupt the entire economy of a nation halfway across the globe. Traditional pyramidal structures are giving up their space to flexible and dynamic networks. Employees no longer have to be obedient peasants – rather, self-driven, irreverent, and creative. Meanwhile, consumers have the power to dictate what they want to be sold and how they want it with only the click of a button. The nature of how we work, live, dream, and create is rapidly changing, while our cultural values are being transformed faster than we can realize.



5.

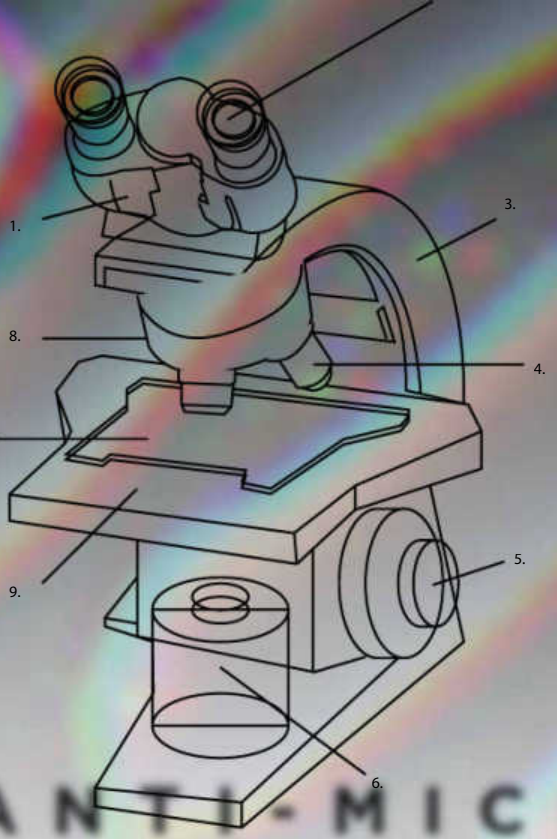
These new ever-changing landscapes impact us all equally – from personal grooming standards to education, transport to mass communications, all on a global scale. We might have the access to enormous amounts of data, numbers, figures, and information about "the future," but it isn't enough if we are not able to make sense of it – and more importantly, use it to make better decisions that will help us imagine and create new scenarios that can inspire humanity to be the best version of itself.

Foresight is a fascinating discipline that helps us understand and use "the future" as the main fuel for creative thinking. It is a proactive way to successfully navigate these uncertain times and take advantage of our unpredictable world – encouraging us to meet this changing reality with high curiosity, imagination, and the desire to illuminate the societal, environmental, and economic factors that were previously swept under the rug.

The gleaned raw material to build the future lays in the vibrant chaos and complexity of the present. Inspiration exists everywhere: in corporations, rebel subcultures, an ancient tradition, or on a digital platform. How our enlightenment takes form can be new metaphorical realities, poetical narratives, tangible solutions, or scenarios that contextualizes what could be. By using the power of language, we can go beyond the regurgitation of data or trendspotting, and use these inputs to ignite creativity, develop a sense of possibility, and design relevant strategies for the present – instead of just accepting what others say will happen.

Foresight is an active call to use the future not as an inevitable unknown destination, but as a tool and a source of inspiration for creative development in the present. How will you make the future your creative fuel?

Nicolas Arroyo & Rune Toldam are the founders of Bespoke Copenhagen. They are based in Copenhagen, Denmark.



ANTI-MICROBIAL RESISTANCE



BY: ANNA DUMITRIU

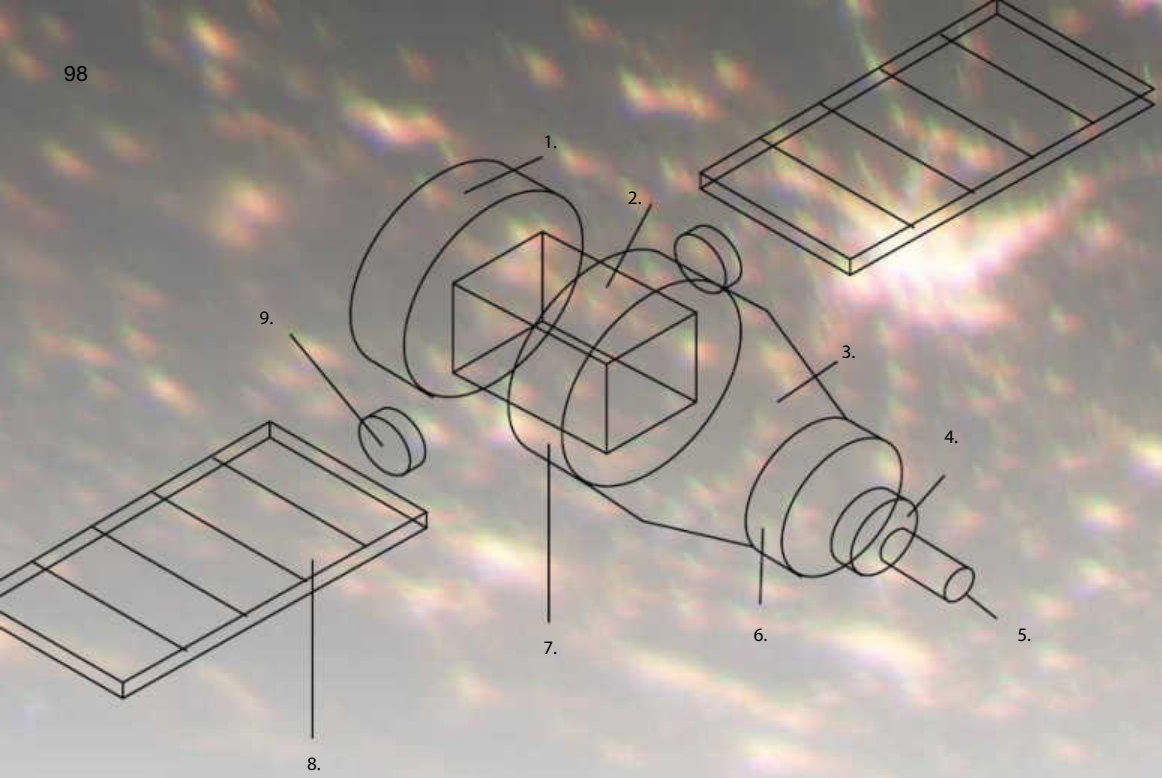
As an artist, I work in clinical microbiology laboratories, creating artworks that interrogate the sublime world of bacteria, which are both my medium and subject. I am specifically interested in the impact of bacteria on our health, and the nature of infection.

We live in the age of antibiotics, or at least we think we do. Since the introduction of penicillin and, more recently, drugs such as vancomycin, we have been able to treat bacterial infections and save millions of lives. But since the beginning of the antibiotic age, it has been a kind of arms race: Bacteria would evolve resistance to the drugs, sometimes very quickly, then humans counter it by developing new drugs, and repeat. But in recent years, humans have fallen behind in this battle. Jeremy Farrar, director of major biomedical research charity the Wellcome Trust, recently stated: "We are failing to contain the rise of resistance, and failing to develop new drugs to replace those that no longer work. We are heading for a post-antibiotic age."

"WE ARE FAILING TO CONTAIN THE RISE OF RESISTANCE, AND FAILING TO DEVELOP NEW DRUGS TO REPLACE THOSE THAT NO LONGER WORK. WE ARE HEADING FOR A POST-ANTIBIOTIC AGE."

One of the greatest threats comes from the ability of gut bacteria to promiscuously share plasmids, even between different species. Plasmids are small units of DNA that can exist inside a cell, but are physically separate from the chromosomal DNA. They have the ability to replicate independently and can carry antibiotic resistance genes. Some of these plasmids, such as New Delhi metallo-beta-lactamase 1 (NDM-1), have the ability to spread massive antibiotic resistance to multiple drugs via a mechanism called horizontal gene transfer. This process works immediately in contrast to vertical transmission, which instead requires genes to be passed on from a "parent" to the next generation, and is far slower. The result is that we will be increasingly at risk from untreatable infections.

Anna Dumitriu is an artist in residence at the Modernising Medical Microbiology Project at the University of Oxford. She is based in Brighton, United Kingdom.



SATELLITE DEPENDENCY

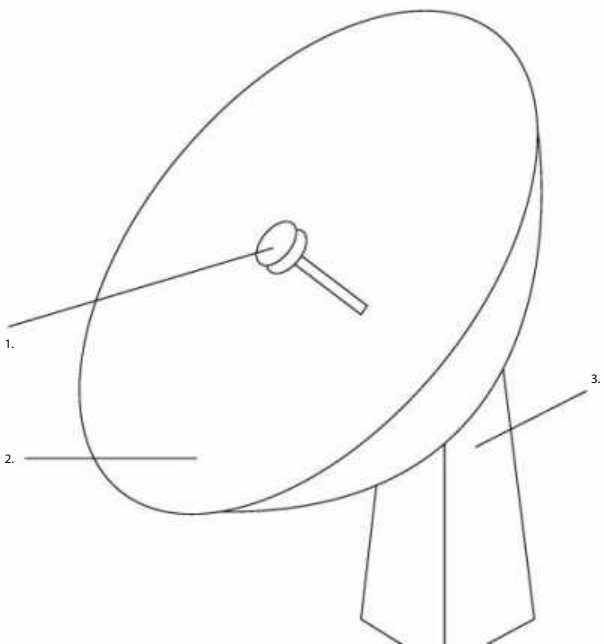


BY: GEORGE DVORSKY

Few people today are aware of the risks posed by the partial or total loss of our satellite fleet, a catastrophe that could be instigated by a Kessler Syndrome (as portrayed in the film *Gravity*), a massive geomagnetic solar storm, or through a potential space war. Without our satellites, our ability to communicate would diminish dramatically. GPS would be completely wiped out, along with the systems dependent upon it. Space-based synchronization would grind to a halt, affecting everything from the financial sector through to the electrical grid.

We need to take this risk more seriously and start to act accordingly. For starters, we should improve the robustness and resilience of our infrastructure; our dependence on satellites has put us in a precarious position. We also need to develop an appreciation of the orbital ecology. As time passes, both Low Earth Orbit (LEO) and Geosynchronous Orbit (GEO) are getting increasingly cluttered with satellites and space junk. Unless we start to clean it up, we could lose these precious areas of space for decades, if not longer.

George Dvorsky is a contributing editor at io9. He is based in Toronto, Canada.

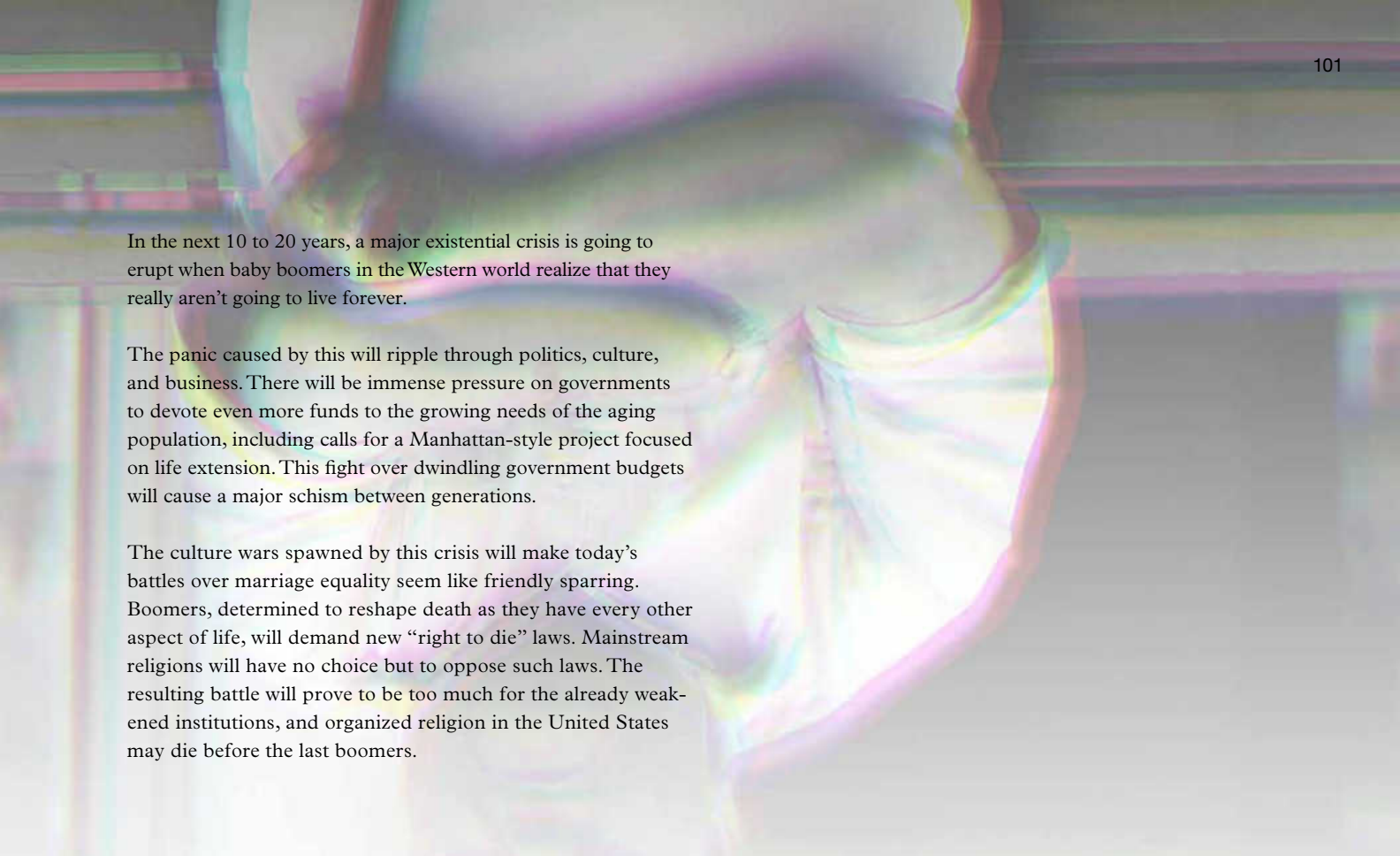




WHEN BOOMERS FACE DEATH



BY: JOE TANKERSLEY



In the next 10 to 20 years, a major existential crisis is going to erupt when baby boomers in the Western world realize that they really aren't going to live forever.

The panic caused by this will ripple through politics, culture, and business. There will be immense pressure on governments to devote even more funds to the growing needs of the aging population, including calls for a Manhattan-style project focused on life extension. This fight over dwindling government budgets will cause a major schism between generations.

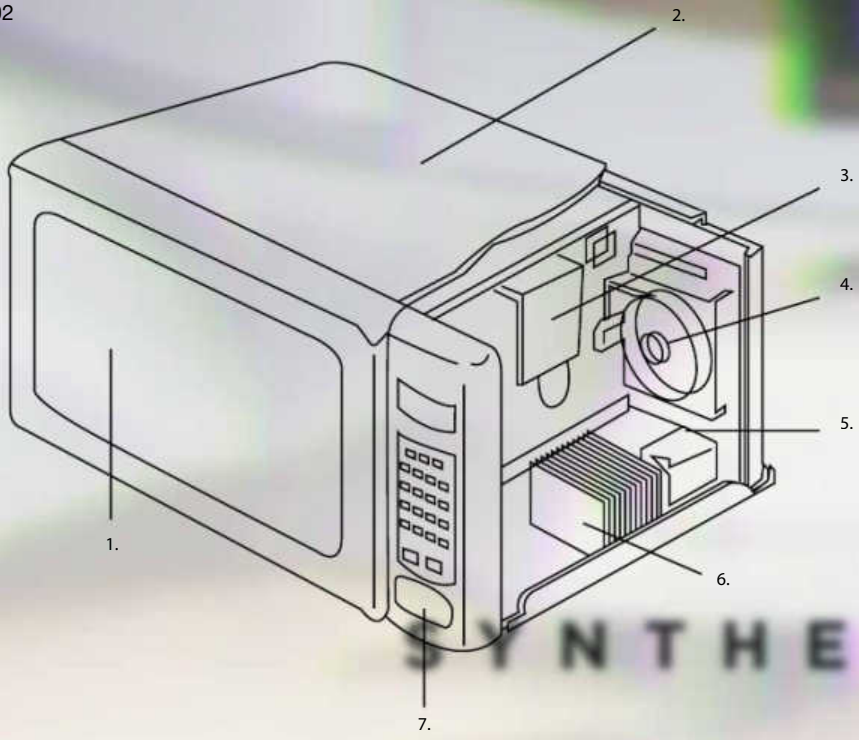
The culture wars spawned by this crisis will make today's battles over marriage equality seem like friendly sparring. Boomers, determined to reshape death as they have every other aspect of life, will demand new "right to die" laws. Mainstream religions will have no choice but to oppose such laws. The resulting battle will prove to be too much for the already weakened institutions, and organized religion in the United States may die before the last boomers.

THERE WILL BE IMMENSE PRESSURE ON GOVERNMENTS TO DEVOTE EVEN MORE FUNDS TO THE GROWING NEEDS OF THE AGING POPULATION, INCLUDING CALLS FOR A MANHATTAN-STYLE PROJECT FOCUSED ON LIFE EXTENSION.

Of course, every crisis has its silver lining. For those in the wedding business, struggling to stay alive in a time of steeply declining marriage rates, the demand for fairy tale funerals and grand exits will prove a welcome opportunity.

As to how might we address this crisis? Two words come to mind: Soylent Green.

Joe Tankersley is a storyteller, futurist, and cynical optimist. He is based in Florida, United States.



SYNTHESIZED CURE



BY: TREVOR HALDENBY

Synthetic biology pulls together an incredibly powerful set of tools, enabling human beings to design and engineer life in the same way that we craft objects, software, and systems. We are opening the door to a world potentially redefined by sustainable and human-centered innovations in health, food, and energy. But what are the potential costs?

Most of the synthetic biologists and genomic entrepreneurs I meet insist that it would be an epic moonshot costing billions to engineer a weaponized organism that could thrive in the wild biosphere of planet Earth, let alone decimate the human population. But billions of dollars come more easily today than they did decades ago, and for me, it's not hard to imagine a well-funded group of near-future hackers sabotaging a viral therapy, or trawling stolen 23andMe data banks, looking for a backdoor to exploit in our immune systems.

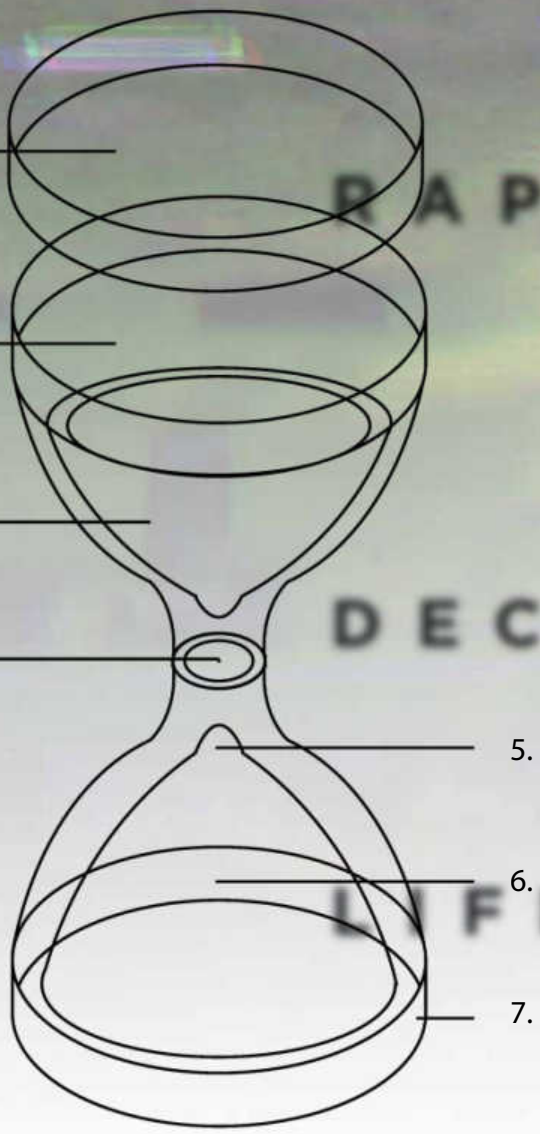
Precautionary principles and open dialogue at the highest level of regulation (as well as across the lab bench) may be the best ways to avoid this synbio crisis scenario, and that exchange between the public, policy makers, and the private sector is already occurring around the world. But in this radical new world of design, the rules, boundaries, and players are constantly shifting, the membranes connecting technologies and their use unpredictably permeable. Innovative companies like Synbiota are translating the standards and values of open-source marketplaces to synthetic biology, building a fair use economy of bio-bricks and finished bio-products to steer people away from closed and isolated work in the field.

BUT IN THIS RADICAL NEW WORLD OF DESIGN, THE RULES, BOUNDARIES, AND PLAYERS ARE CONSTANTLY SHIFTING, THE MEMBRANES CONNECTING TECHNOLOGIES AND THEIR USE UNPREDICTABLY PERMEABLE.

But in spite of their efforts and those of organizations like the Pink Army Cooperative, who work to create open-source viral cancer cures, I think it's likely that the next immunological disaster of the 21st century will – like that of the 20th century – catch us off guard with its scale, and leave us scrambling to identify a solution in times of compromise. The difference this time could well be on a new battlefield, against a foe designed by humans to amplify the blunt and powerful mechanisms of checks and balances that exist in nature.

Trevor Haldenby is a design futurist and innovation consultant, and founder and CEO of The Mission Business. He is based in Toronto, Canada.

RAPIDLY DECREASING LIFESPANS



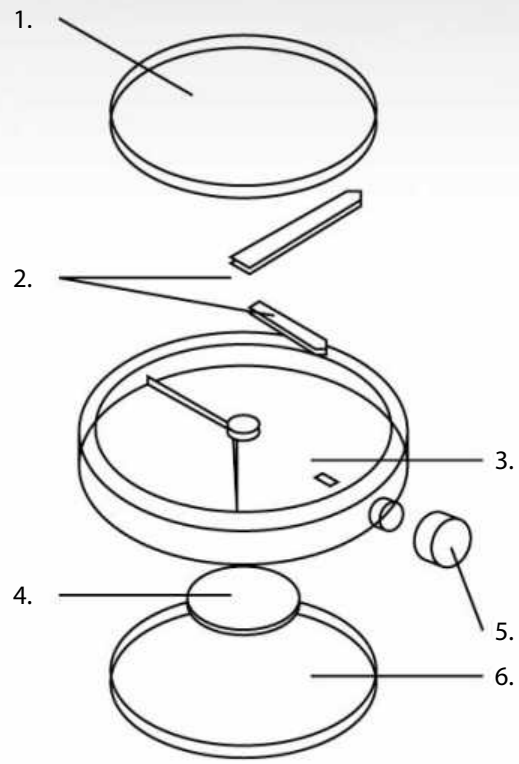


BY: WENDY L. SCHULTZ

First we went from bemoaning the stress on the pension and health systems that would be caused by the population age bump. Now, the transhumanists and other futures thinkers are talking up life extension, vigorous aging, and digital immortality.

The real issue for the closer-term future, in the next twenty years or so, is the crossover point among the people that we are, the healthcare that was, and the emerging dreams of 3D bioprinted replacement organs, human performance enhancement, vigorous aging, digital augmentation, and mind uploads.

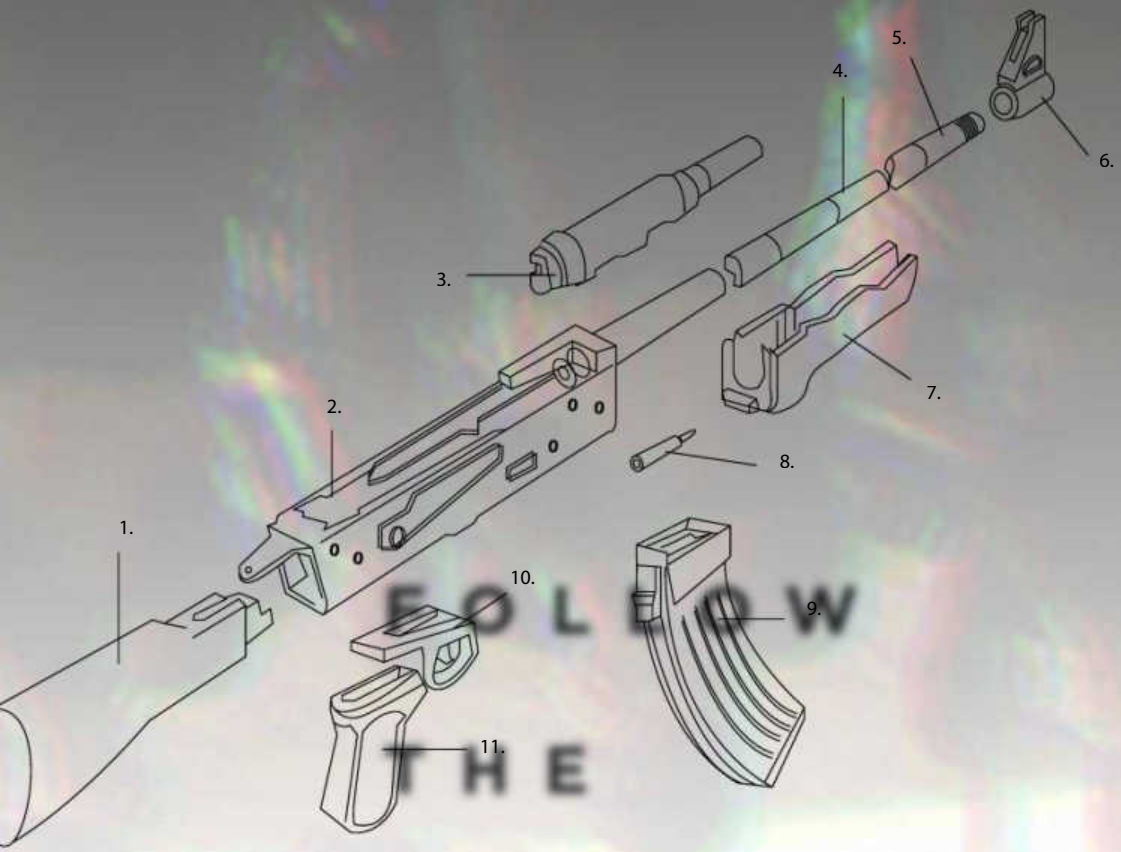
WILL PEOPLE START REFUSING COMMON SURGERIES AS THEY GET OLDER, BECAUSE THE RISK OF INFECTION INVOLVED IN ENTERING A HOSPITAL – MUCH LESS HAVING MAJOR SURGERY – WILL SIMPLY BE TOO MUCH OF A GAMBLE?



Here's the difficulty: In the near term, extending healthy aging is still likely to involve surgery for most of us. That requires antibiotics. In a world where antibiotic resistant bacteria are increasingly common, at what point do lifespans start falling again? Will people start refusing common surgeries as they get older, because the risk of infection involved in entering a hospital – much less having major surgery – will simply be too much of a gamble? Will global climate change exacerbate the risk? Heat waves are bad for heart health, allergies, and overall health, but great for the spread of infectious disease.

We might address this crisis by offering incentives for everyone to maintain their health with exercise and good diet, or making massive investments – the "moral equivalent of war" – in finding effective new antibiotics, or entirely new solutions to fighting bacteria and viruses. How about super-charging white blood cells via genetic engineering, or nanotech-based artificial white blood cells? Could we even be adjusting the body's internal biochemistry to make it an inimical environment for infectious agents, possibly through biofeedback? We are only now at the beginning of exploring how the brain, nervous system, micro-fauna, and other components of the body work together such that "mind" is the emergent property resulting.

Wendy L. Schultz is a futurist. She is based in Oxford, England.



FOLLOW THE LEADER



BY: ROBERT J. SAWYER

In all cultures, there are a few manipulative authoritarians who wish to lead – and many who are predisposed to follow them blindly. Bob Altemeyer, a professor at the University of Manitoba, demonstrated that whenever authoritarians gain power, disaster ensues, as we saw with the invasion of Iraq based on fabricated intelligence. But that fiasco was small potatoes: Altemeyer's simulations suggest a nuclear holocaust will eventually occur as authoritarian leaders in different parts of the world come into conflict.

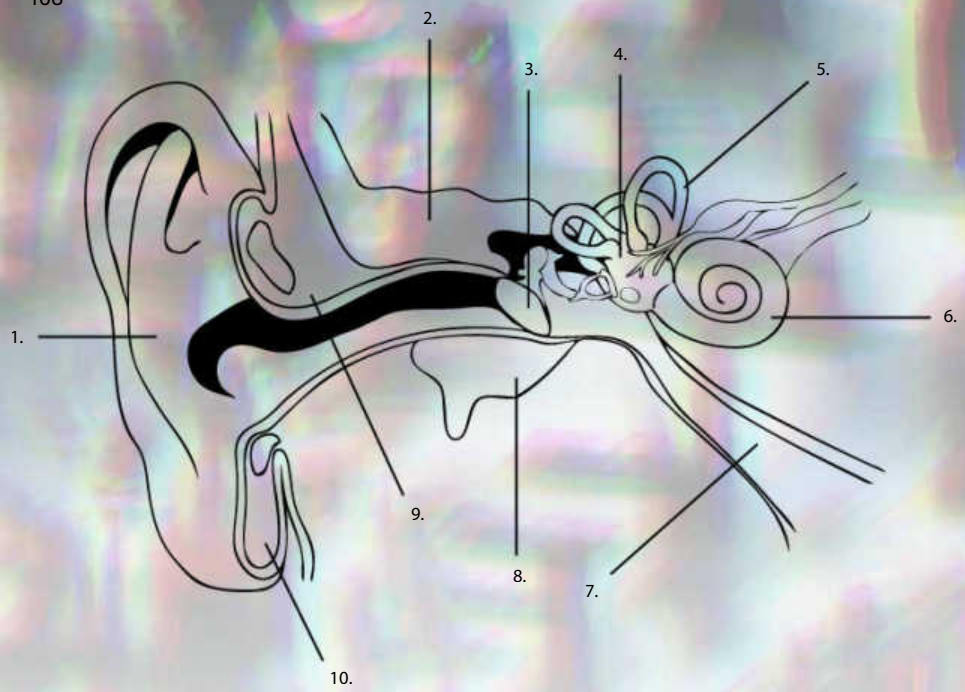
His research is still largely ignored even though former Nixon White House counsel John Dean highlighted it in his 2006 book, *Conservatives Without Conscience*. We panic when Al-Qaeda radicalizes millions, but we've paid no attention as the practice has become blatant among political and religious leaders in the West. Indeed, whenever someone tries to draw a parallel to the most obvious historical example – Germany falling under Hitler's thrall – Godwin's Law is invoked to falsely insist that no such comparisons are ever apt.

WE PANIC WHEN AL-QAEDA RADICALIZES MILLIONS, BUT WE'VE PAID NO ATTENTION AS THE PRACTICE HAS BECOME BLATANT AMONG POLITICAL AND RELIGIOUS LEADERS IN THE WEST.

George Orwell said that mind-controlling messages would soon be pumped into our homes, but he would have been astounded that millions voluntarily tune into them in the form of Fox News and conservative talk radio. As Altemeyer has shown, huge numbers have already been radicalized in this way, and they ignore overwhelming evidence that they've been lied to. The failure of blind followers to accept evolution is merely galling; the failure to accept anthropogenic climate change is an existential threat to our species.

Is there hope? Perhaps. But until we begin to guard against the ways in which whole societies are easily manipulated by charismatic authoritarians, we're still in enormous danger.

Robert J. Sawyer is a Hugo and Nebula Award-winning science-fiction writer. He is based in Toronto, Canada.



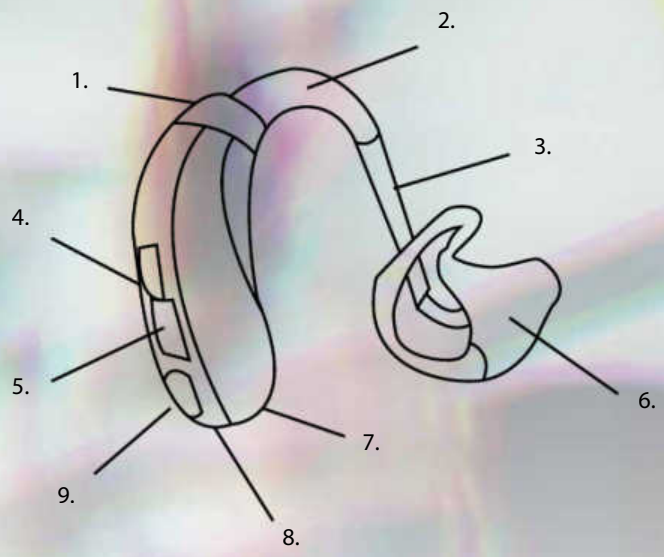
LISTEN—



BY: SANJAY KHANNA

A simple question: What if nations and societies around the world face heightened risk today because people find it increasingly challenging to listen well?

For skilled listeners in unfamiliar and potentially threatening environments, the first signs of warning and welcome flow from cognitively processing and interpreting sound with accuracy and a sense of proportion. We teach young children to be safe by asking them to pay close attention to strangers' intonations, as well as other clues that inform their sense of danger. Mindfulness-based stress reduction implores students to observe thoughts and feelings without judgement as they attend to potentially anxiety-provoking bodily sensations, life circumstances, and human interactions. Militaries instruct special operations forces to listen deeply in simulated enemy territory for the same reason: to dynamically sense threats and opportunities and to act decisively to protect themselves and comrades.



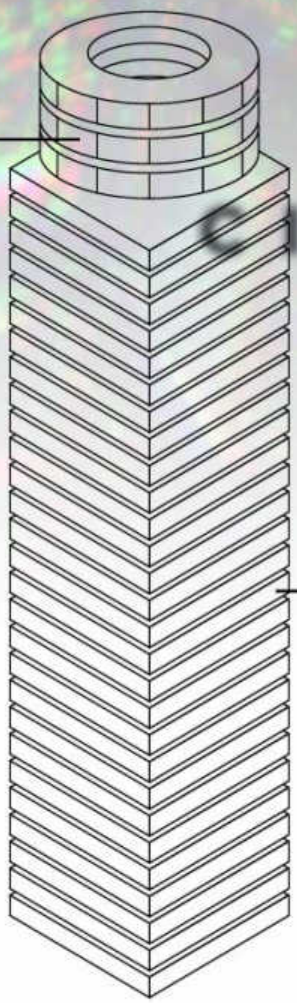
FOR SKILLED LISTENERS IN UNFAMILIAR AND POTENTIALLY THREATENING ENVIRONMENTS, THE FIRST SIGNS OF WARNING AND WELCOME FLOW FROM COGNITIVELY PROCESSING AND INTERPRETING SOUND WITH ACCURACY AND A SENSE OF PROPORTION.

Perceiving risk, identifying opportunity – and tuning into others' needs and one's own environment – are intimately correlated with listening. Yet, as the 21st century becomes more fraught with systemic risks and threats such as economic reordering, growing depression and anxiety, and an increased likelihood of extreme weather-related events, chronic stress at the population level may diminish people's ability to listen effectively. The upshot: Since long-term stress affects inner-ear physiology via the glucocorticoid cycle, chronically stressed individuals and communities may find it harder to absorb emotional, material, and environmental support because they aren't able to process and thus perceive its very existence.

Consider the implications of reduced listening quality on a global civilization that's stretching macroeconomic and ecological fundamentals. Even as systemic risks and threats grow, impacting organizational decision making, highly stressed individuals within organizations and communities of practice may not recognize internal and external patterns that could influence their organizations' futures. They may not listen as well as usual to the spoken and unspoken clues that signal misaligned perception, risk, opportunity, and action. These phenomena may repeat themselves even in essential public-sector disciplines, such as public safety, public health, disaster and emergency management, which address long-term risk in preparation for municipal, regional, national, and sometimes even global shocks.

For businesses, long-term planning is a likely casualty as short-term volatility dominates C-suite decision-making patterns. For consumer brands with the most to lose – as people's diminished listening abilities impact loyalty and profitability – there is a crystal-clear implication: The advantage goes to those consumer brands that invest in studying and responding to consumers' desire to be heard, as well their desire to experience listening as an invaluable source of calmness and interpersonal trust. This may be among the great societal benefits of arts and cultural organizations in the 21st century: their capacity to encourage listening, engage scarce attention, and foster genuine bonds of interpersonal and community-based trust during the next quarter century of macroeconomic, psychosocial, and sociocultural uncertainty and upheaval. Here's to consumer brands and arts and cultural organizations building innovative partnerships that encompass the human need to listen and, by listening, to thrive.

Sanjay Khanna is a strategic foresight expert and first ever futurist-in-residence with the Toronto Symphony Orchestra. He is based in Toronto, Canada.



CITIES IN CRISIS!

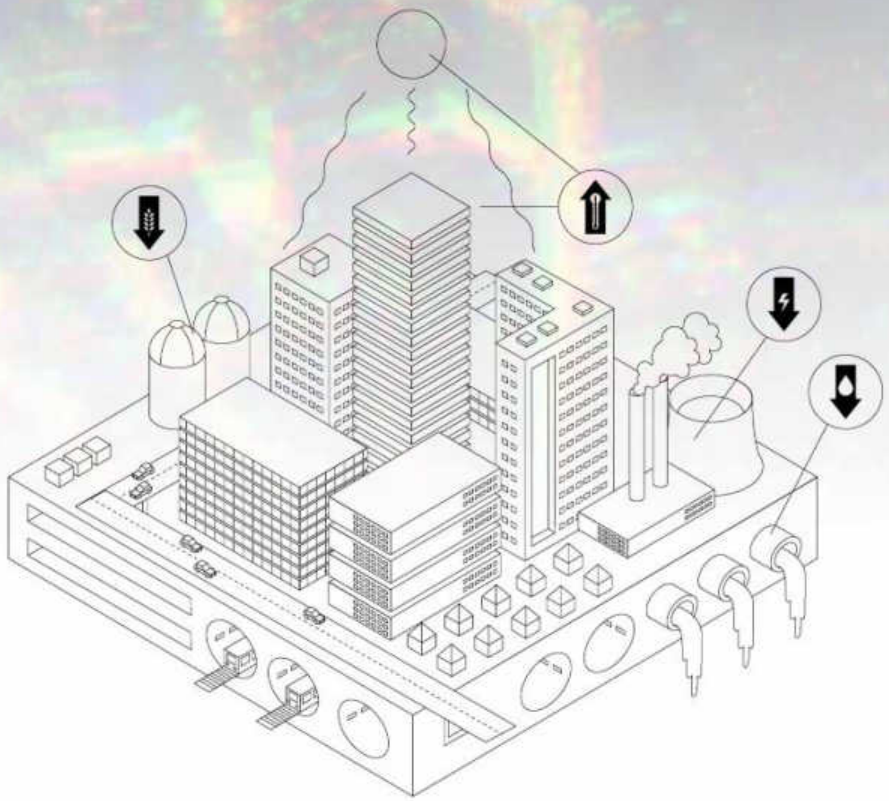


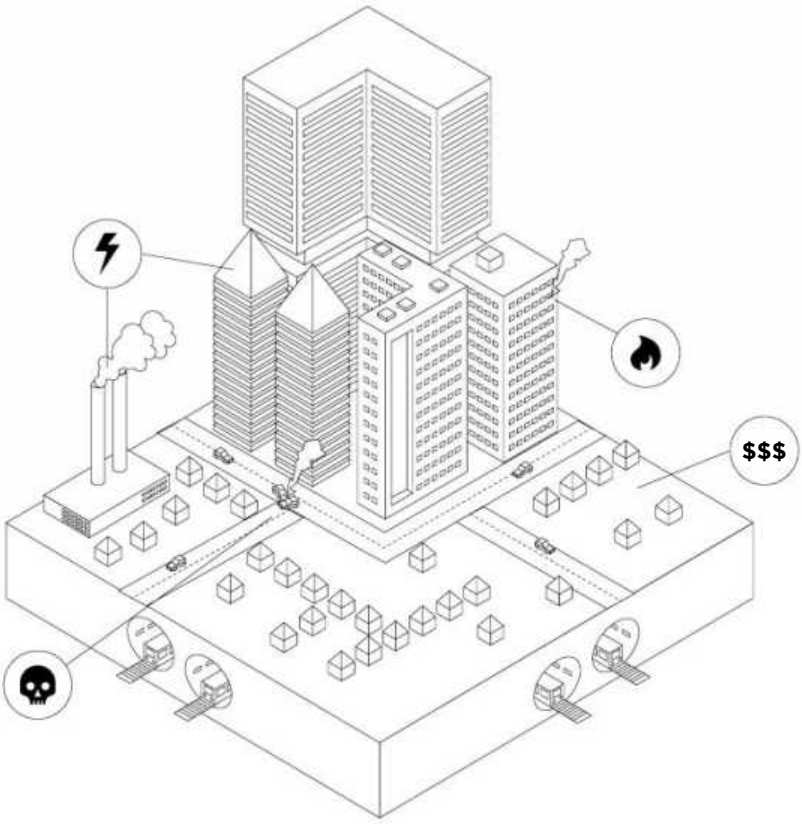
BY: ANTOINE BELAIEFF

For decades now, globalization has corralled the rural poor to the south's metastasizing megalopolises, while in "world class" cities, the global rich are jetting to rarefied enclaves. Other troubling trends are emerging that, when combined with existing challenges, could make these issues even more vexing to address.

UNRESILIENT CITIES

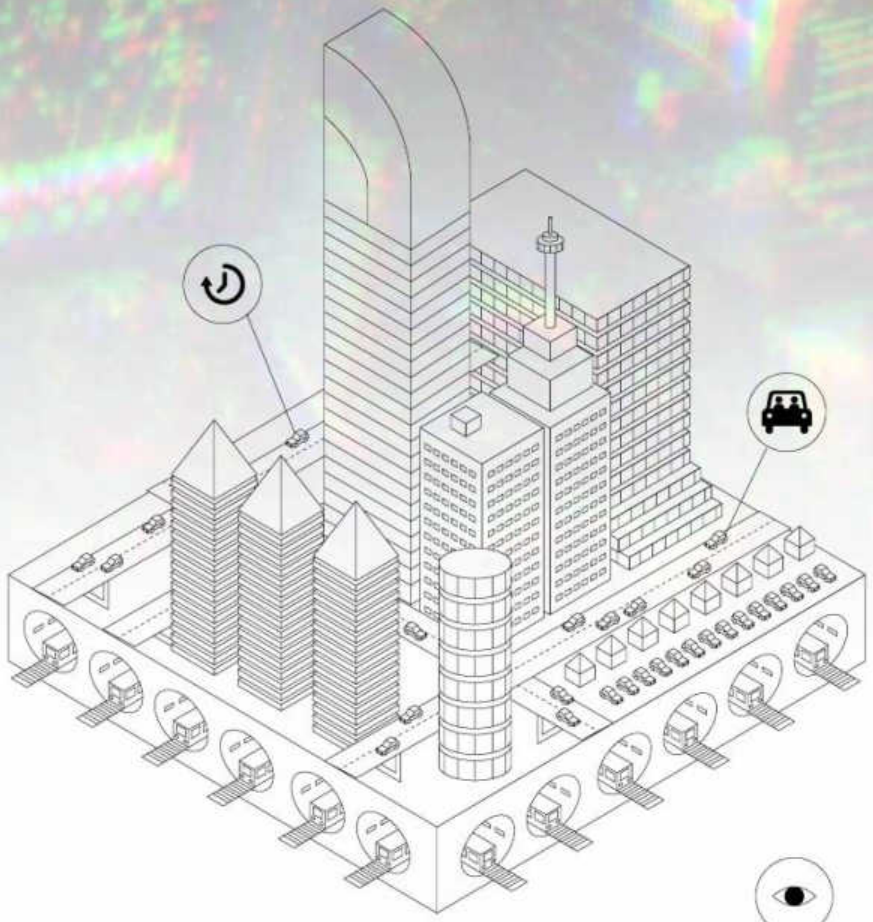
Urban residents use space and resources efficiently, but high densities pose growing waste, water, and energy management challenges, making reliance on renewable energy more difficult. Dense cities exert great pressures on their local ecosystems, and increasingly, frequent floods and heat waves are bringing unready infrastructure as well as social structures toward uncharted territory.





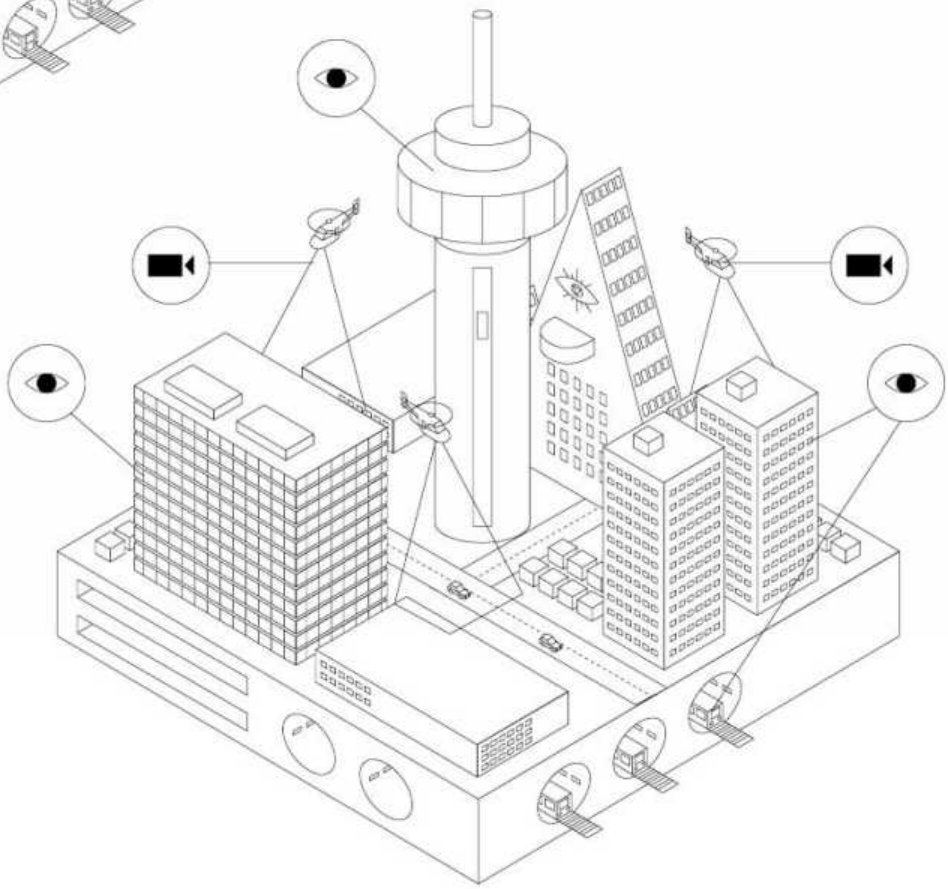
CENTRIFUGAL CITIES

As cities are concentrating wealth and population growth, land prices will make desirable neighborhoods inaccessible to most – while safety and environmental concerns will make less desirable areas even less so. The growth of telecommuting and the possible emergence of autonomous vehicles will further accelerate this phenomenon as these options allow for longer but less frequent commutes. This outmigration will spawn sprawling cities that consume more energy, place pressure on ecosystems, and cost more to service, while leading to frayed social networks.



TREADMILL CITIES

The "sharing economy" is providing new opportunities for urban residents to become hyperefficient: driving others, picking up their parcels, or hosting them. At first a productive alternative to Netflix, hyperefficiency may become the newly required ticket to home ownership. Working three jobs may become a new requirement for a newly redefined middle class.

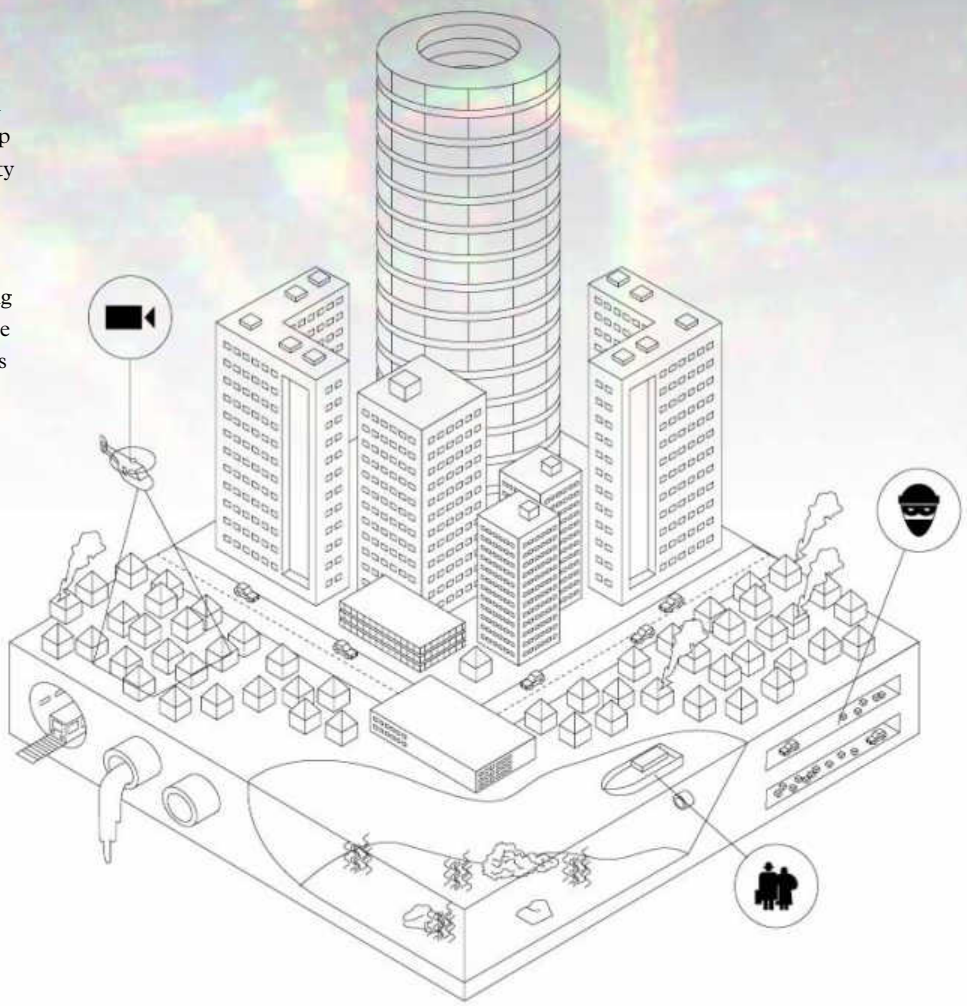


HYPER-SURVEILLED CITIES

Ubiquitous CCTV will be joined by the exciting-sounding Internet of Things, trillions of "beacons," sensors, and powerful pattern and facial recognition that promise to make cities hyper-surveilled spaces. This is sure to alter the very notions of privacy and democracy, as foreseen in the 1990s and early 2000s by movies such as *Gattaca* and *Minority Report*.

PRESSURE COOKER CITIES

The pervasiveness and desperation of climate refugees as well as war refugees – or often both – will likely swell beyond the ability of developed countries to keep them out. Shut out of mainstream society by hyper-surveillance systems, they will survive in the interstices of society, participating in the shadowy corners of the "sharing economy," often performing unsafe and often illegal tasks all the while redefining established notions of fairness and equity.



SELECT YOUR DESIRED FUTURE: UTOPIA OR DYSTOPIA?

The trends described here are real and likely unstoppable. Outcomes will be highly localized and dependent on the strength of democratic institutions, the trust that populations place in experts, the resources that governments allocate to preparedness, the strength of institutions to address inequities, and the speed at which jurisdictions are able to respond creatively and intelligently to new technologies and business models. The challenges placed on cities will necessitate a thorough and inventive reform of exhausted frameworks and models, all the while leveraging and building on their strengths.

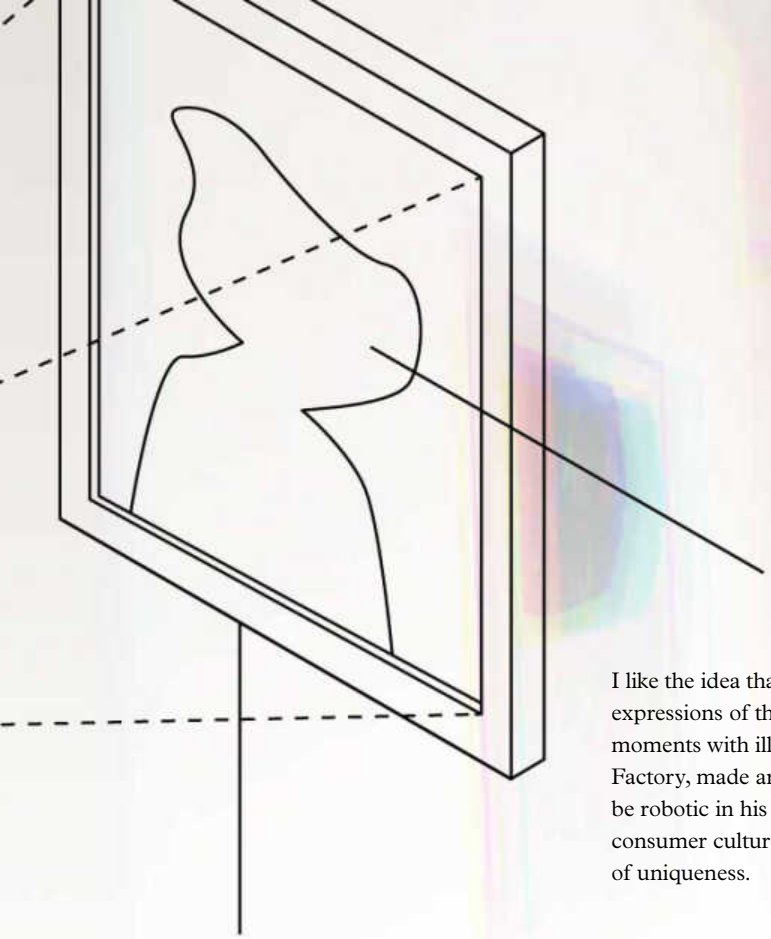
The challenge is immense. Will your city rise to it?

Antoine Belaieff is an urbanist focused on innovation, environment, transport, and government. He is based in Toronto, Canada.

THE CRISIS IN ART



BY: ROSEMARY HEATHER



3.

4.

I like the idea that Twitter and Andy Warhol are equivalent expressions of their eras. Both incarnate their respective cultural moments with illuminating simplicity. Warhol called his studio The Factory, made artworks using industrial processes, and tried to be robotic in his utterances. What the artist implies is how 1960s consumer culture made mass identities, but with the appearance of uniqueness.

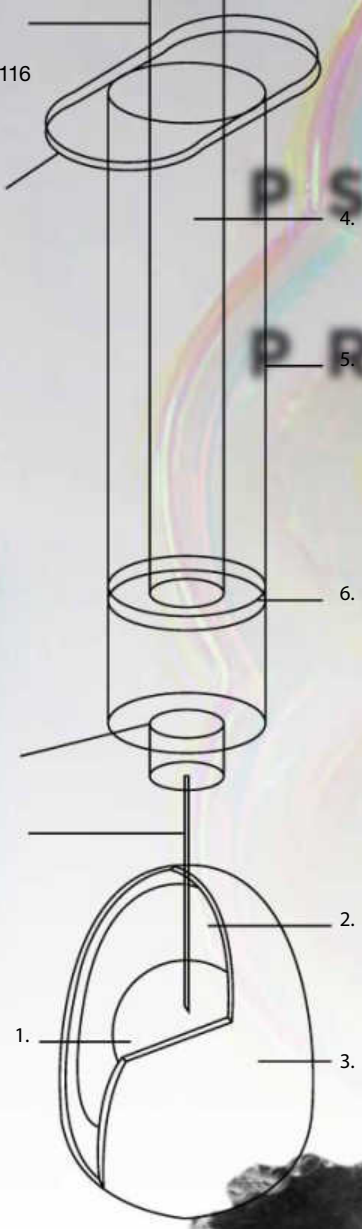
Update that and you get Twitter as an aphorism machine and automaton of self-promotion. Twitter fulfills the vision Warhol foresaw of today's fame industrial complex – as the art critic Jerry Saltz recently quipped: "In the future everyone will be famous to fifteen people." Most important: Twitter embodies our present era in a manner Warhol himself wouldn't recognize.

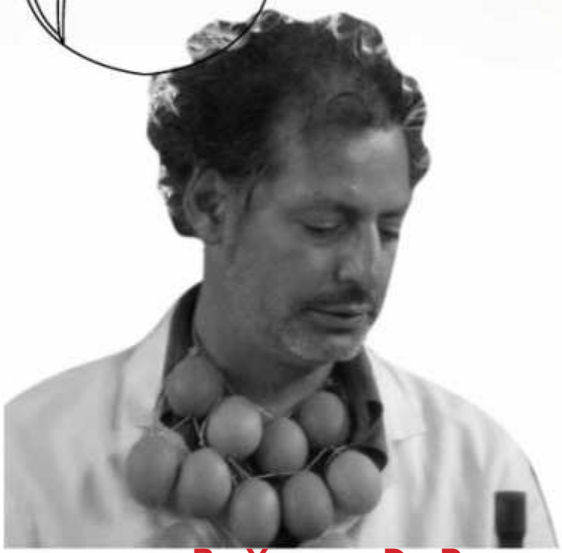
History works like that. Epochal change happens in a way we don't fully understand. Tweets have no value without an audience to read and respond to them. This tells us the transition we are now going through is one from not human to machine so much as individual to collective, from client-server relationship to a peer-to-peer universe. Art today places a lot of emphasis on group initiative, but the effect is relatively weak when compared to the awesome power social media and the blockchain puts into the hands of the collectivity.

While the end result is not art, the culture the net creates suggests a new role for art that the institution has yet to come to terms with. It's a crisis that the current vogue for artworks as an asset class helps to obscure. But no matter the collusion that will continue to prop that market up, the cultural tendency of actual significance in our time is happening elsewhere with profound long-term effect.

Rosemary Heather is the editor-in-chief of Q&A Interviews *and a freelance writer. She is based in Toronto, Canada.*

PSYCHOSOCIAL PROBLEMS FOR TRANSGENIC HUMANS





BY: DR. ADAM ZARETSKY

The process of transgenic human engineering is getting faster, cheaper, and easier. The lowest risk protocol is in process of being developed. What is it like to be a GMO? More importantly, what is it like to design, birth, and raise a GMO child? A DIY-IGM bioartist like myself might focus on where to get genes in, and how?

Anatomically speaking, human gene insertion potential sites on the human body are:

/ The whole somatic body of women and men, including germ cells
/ Targeted ovaries and testicles
/ In vitro or in situ sperm and ovum
/ Post-fusion zygote or blastula
/ Human Embryonic Stemcells (HESc), isolated lines in tissue culture
/ Developing human embryos and/or embroid bodies (preimplantation embryos)
/ Primordial germ cells (pre-sperm or pre-eggs also known as spermatogonia and oogonia.)

More interesting for most is which genes to pick, purchase, and update into your kindred and why. What types of transgenic human alterations are possible? And what environments or circumstances could they best flourish in?

ENHANCEMENTS

This includes strength, intelligence, memory, longevity, healing, resistance (to radiation or other deadly teratogens), beauty, sexual potency for military, space travel, economic, sports or other perfectionist species trajectories.

EXUBERANCE

Drawn from all organismic diversity genes, or libraries of genes – for instance, worm skin, kangaroo pouch, lizard legs, tree skull, mango saliva, or mushroom reproductive traits. Such libraries will allow access to the full range of color, skin (scales and fur), brain types (dolphin and/or platypus), metabolic skills (cannabanoid pathways), and glands. Additionally, it can allow reference to cultural origins of design from ancient myths to present day media; and use of preserved genes of historical figures (i.e. Genghis Khan and Cohen genes available from Ancestry.com).

MORPHOLOGY

This consists of body plan alterations, from size (height, width, length, morphed proportions) to multiples (many eyes, many legs, many arms, many clitorii), and the morphological problem of placement (i.e. ectopic) and attachment to the brain and central nervous center so they "work."

BEYOND TERRAN DESIGN SETS

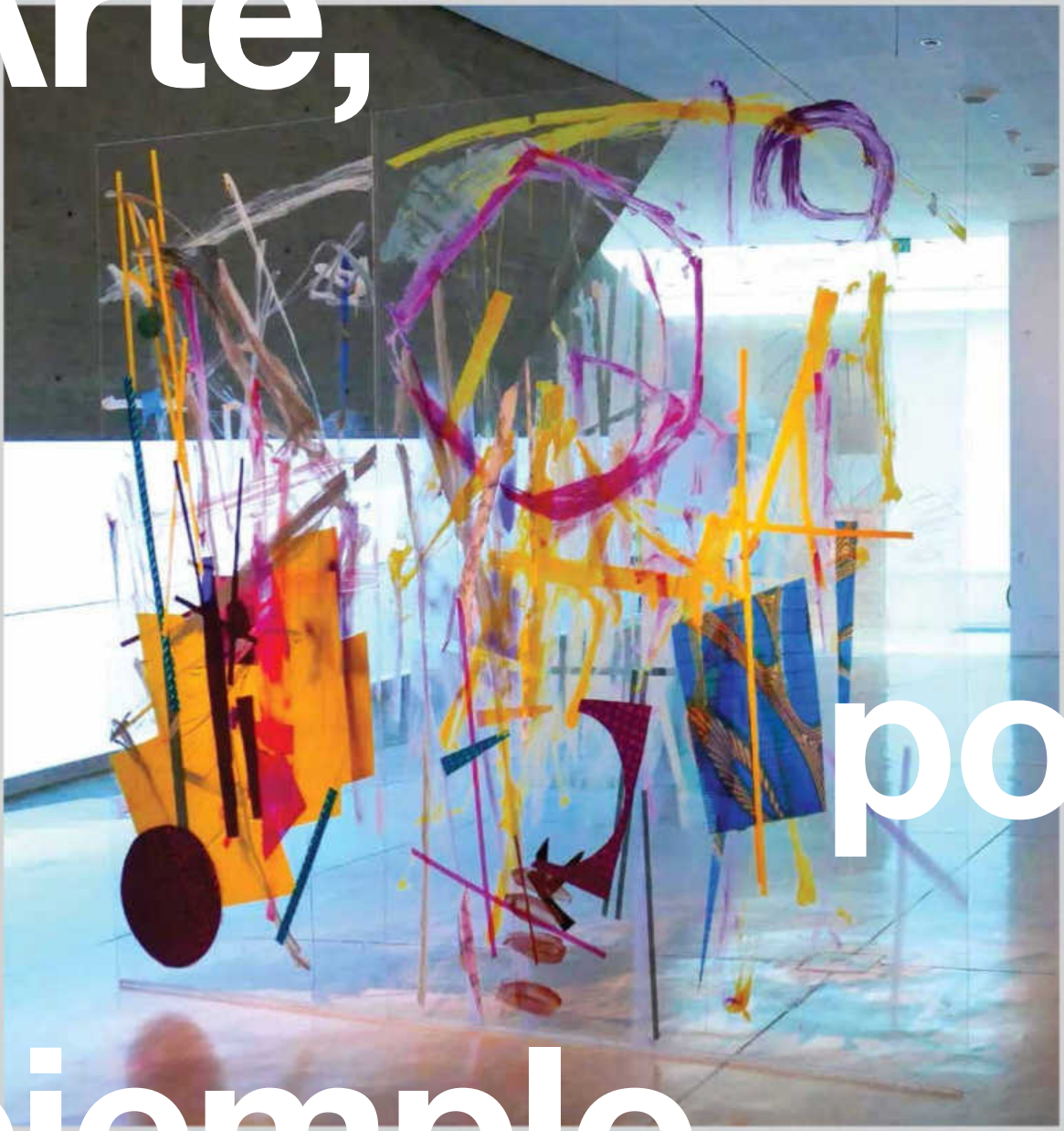
This set will consider interplanetary size, decentralized (rhizomic) entities, permutative architectures, and other planets as petri dishes for spreading unimaginable life forms and seeding the galaxies with experimental life forms of diversity beyond our cognitive capabilities to comprehend.

Possibilities aside, the real issue is: Who is produced? How are they doing living with your anatomical, metabolic, or purely aesthetic choices (as their sticky body pod lifestyle, for example)?

In order to be able to prevent painful psychosocial problems for transgenic humans, we need to develop a language of gene choices based on aesthetics and sensitivity. A descriptive lexicon may help us understand the massive detail that life has. What about preempting neo-prejudices by queering general public appreciation of mutant beings? That way, all of the multidimensional aspects of developmental biology can culminate into amazing ranges of tween embodiment over time.

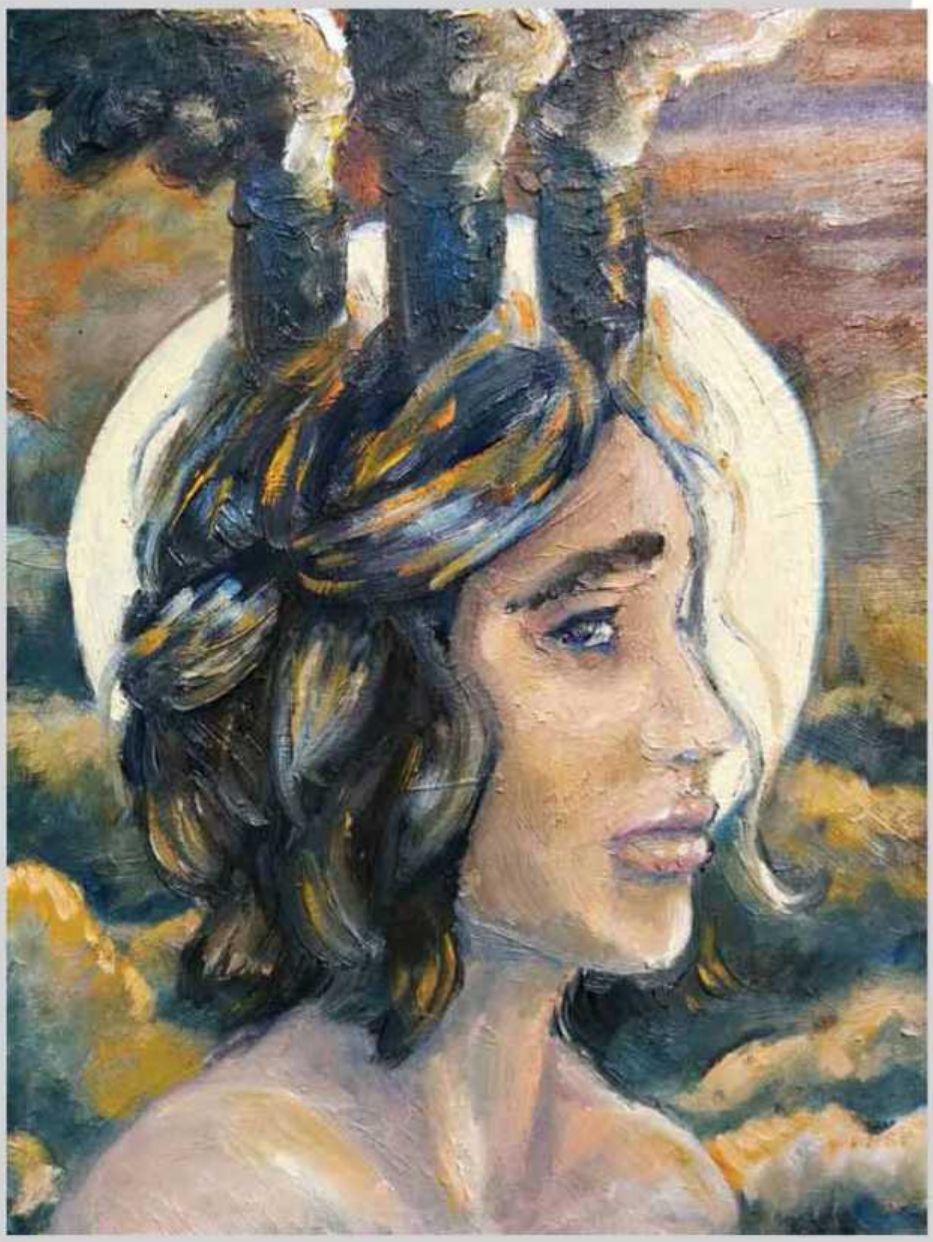
Dr. Adam Zaretsky is a Wet-Lab DIY-BIOart Practitioner. He is based in Amsterdam, Netherlands.

Arte, por ejemplo



Art, for Example

01



Name:
Devon Serket
Hometown:
Port Perry, Canada
Current City:
Toronto, Canada
Education:
Illustration Student at OCAD, Toronto

Interests & hobbies:
I am interested in digital art, technology and new media.
My hobbies include keeping reptiles and fish, dog spotting, playing games with friends, and spending time with my lizard.
Website:
devonserket.com
Shown:
"Thought Pollution"
Crisis is not always a transitory state. Some people live in a constant state of flux, a constant crisis. Their thoughts juxtapose and rebel and contradict. So I tried to capture the intrusiveness of these thoughts and way they can take over a person in an internal struggle. This piece is oil paint on wood board, 12"x16".



02





Name:
Edu Monteiro
Hometown:
Porto Alegre, Brazil
Current City:
Rio De Janeiro, Brazil
Education:
PhD in Art Studies, UERJ (in progress)

Interests & hobbies:
Capoeira and Muay Thai.
Website:
edumonteiro.com
Shown:
"Sensorial Self-Portrait"
My sensorial self-portraits are personal fictions. Inspired by Brazilian plastic artist Lygia Clark, other artists, and a desire to wear an object that forced a change of sensation and self-analysis, I created my own masks. Carrying forward their ideas, I have created self-transformations, rather than creating artwork requiring the participation of others, as Clark did.

03



Name:
Kimberly Hennessy
Hometown:
Cincinnati, USA
Current City:
Brooklyn, USA
Education:
Master of Fine Arts, University of Massachusetts, Amherst / Bachelor of Fine Arts, University of Cincinnati
Interests & Hobbies:
Hot baths, snacks, and trashy mystery novels.

Website:
kimberlyhennessy.com
Shown: ***"Hooked; Meat"*** This body of work responds to human and animal tendencies towards rashness and guttural instinct. The agility and layering of collage provide the arena for a buildup of chaos, humor, grit, and violence. An eye toward contemporary culture and a hasty relationship with material and color inform the artist as "decision making" falls to the wayside and impulse takes control.



04





Name:
Stephanie Peters
Hometown:
Baltimore, USA
Current City:
Sedona, USA
Education:
Bachelor of Studio Art and Art History, University of Arizona
Interests & Hobbies:
Traveling, photography, wildlife, reading, writing, oceans, hiking, nature, puzzles, and hot tea.
Website:
StephArtist.com / NaturalDisasterart.com
Shown: ***"Flood"***
Flood was inspired by the floods in Rio de Janeiro, and part of a series on natural disasters. Each abstract painting represents a disaster with color, line action, material, and beauty. The paintings were then torn and stitched, to represent how humanity and our Earth can heal in the days after. Just like wounds on your body will heal – we will heal and move on.

05



Name:
Alan Brignone
Hometown:
Santa Fe, Argentina
Current City:
Santa Fe, Argentina
Education:
Higher Technician in Visual Arts, Escuela Provincial de Artes Visuales
Interests & Hobbies:
Drawing, painting, collages, comics, graffiti, exercise, and movies.
Website:
alanbrignone.com

Shown: ***"Más Fuerte Que Nunca"*** Mixed Technique – In the absence of light, the reality in which we believe we live in vanishes. This work shows another path. From the invisible, hazardous lines appear and they persuade our sight to go over and discover them. That which is invisible becomes visible. This work represents the force energy has in overcoming the obstacles of life.



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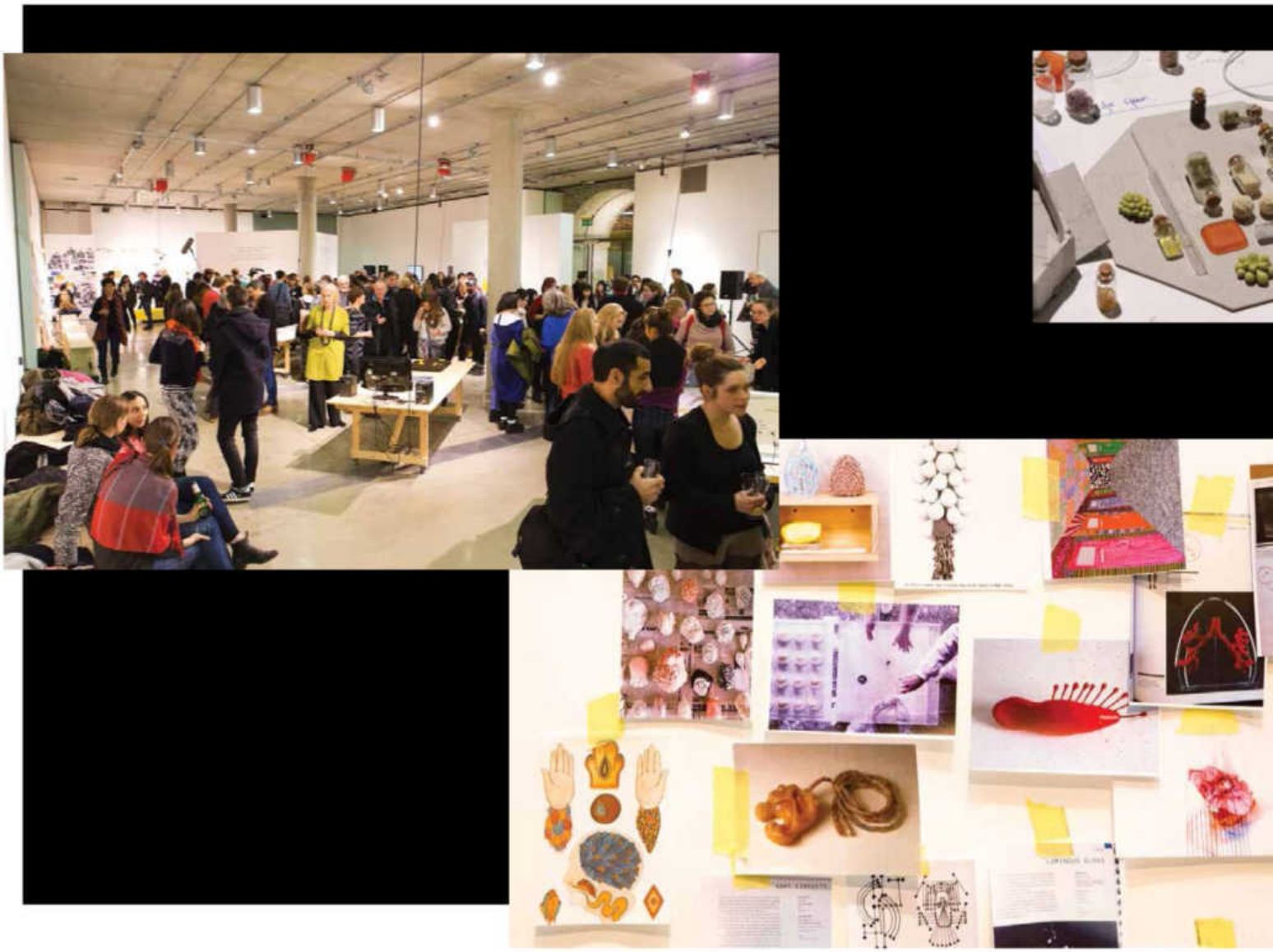
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University of Arts London

MA Material Futures

BY STUART HAMILTON

If something is designed well, you may not even notice it. It conforms to your needs and produces a sensation that blends seamlessly with what you had hoped for, without consciously knowing you were hoping for it at all. As we learn more about human experience – much of it becoming virtual – it is easy to overlook the incredible evolution that the brick and mortar foundation of design continues to enjoy. The spectrum of new materials entering our toolkit ranges from biological standouts









waiting for the right combination of science and design to reach their full potential, such as spider silk, to blockbuster disruptors that threaten to redefine how we live, like graphene. As more substances are created, explored, and utilized in our everyday lives, it is imperative that we, as designers, not only learn to use them, but do our best to stay ahead of the game.

It is for precisely this reason that the University of the Arts London MA Material Futures program promises to usher in a new wave of design experience in a much more tangible way – literally. The recently renamed postgraduate program offers design students the opportunity to participate in revolutionary developments in textiles and materials. The two-year course is broken into two units: Design Challenge and Design Futures. The first provides students with an overview of the key issues positioned to alter the course of designing for the textile and creative industries. The students develop their own creative scenarios to solve a selection of design challenges based on future scenarios, while being exposed to new materials, processes, and technologies. Collaboration with the MA Industrial Design and MA Design: Ceramics programs encourages inter-disciplinary solutions using new materials, interactive design, and sustainable textiles.

The second unit allows students to develop a personal design project, as identified through the examination of issues that pertain to a particular potential "future." In this more self-directed portion, students adapt and develop methodologies introduced in the first unit, and produce a body of comprehensive research on their topic. The Masters thesis



– the culmination of the program – provides the student with an opportunity to showcase these research elements, and critically evaluates the design projects.

The program has, unsurprisingly, produced some thought-provoking projects. One such project seeks to address the environmental crisis we are currently experiencing. Because of ineffective assessment tools, soil contamination is an issue we may not know the true extent of until it is too late. Being incapable of responding quickly or adequately to pollutants in the soil means we are essentially hoping that, by the time we figure out how bad things are, we will have a way to remove those toxins (which is a gamble at best). However, a group of students in the Material Futures program, working alongside students at the MRC Laboratory for Molecular Cell Biology, designed a potential solution to this problem using slime mold. The project was based on a 2025 timeframe, and suggested that genetically engineered slime mold could identify particular pollutants by using an enhanced natural reaction (the release of spores) that would appear as colored smoke. This could be visible from satellites, and would be usable around the world, resulting in a massive self-sustaining sensory network, capable of generating enormous datasets of soil pollution on a global scale. ////

Stuart Hamilton is a healthcare analyst intern at Idea Couture. He is based in Toronto, Canada.

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Vintage Hotel
Brussels, Belgium

BY BENJIE KIBBLEWHITE

Quietly nestled on the narrow Rue Dejoncker in Brussels, the Vintage Hotel is an ideal launching pad for the design-minded business traveler or urban explorer. Here, modern design meets ’70s style in a fusion that more than atones for that decade’s more egregious sins. Each of the intimate boutique’s 29 affordable rooms feature décor handpicked by the owners from antique shops across Europe.

The hotel is a short walk from the metro, with quick access to the city’s Euro and business district. After the meeting, dump your briefcase off and find yourself in the middle of the Avenue Louise, the city’s upmarket shopping district. For the architecture buff, the titanic and eclectic Palais de Justice, the largest building constructed in the 19th century, is a ten minute walk away.

Travelers looking for a truly unique experience should not miss a stay in the hotel’s renovated 1970s vintage chrome airstream, parked in the secure front terrace. And don’t forget to let Tim Vandeput, Best Sommelier of Belgium in 2009, select the perfect wine to round out your urban glamping experience. ////

vintagehotel.be

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Singita Lebombo Lodge Kruger National Park, South Africa

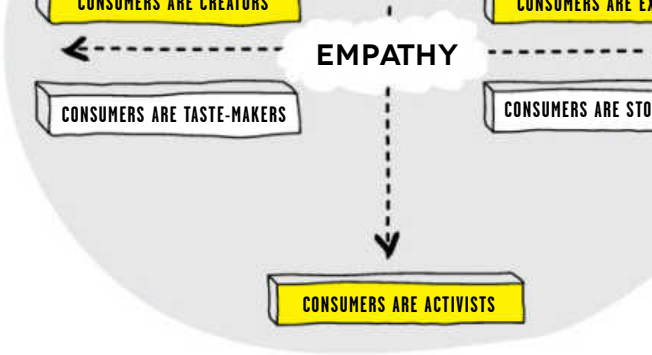
BY MELANIE LEVITIN

Nestled in the Kruger National Park bush, approaching the border of Mozambique, the Singita Lebombo Lodge captures travelers in a plush world of marvel. The private luxury suites borrow their design from eagles' nests, perched cliff-side along the N'wanetsi River. Perfectly entangled in the flora and fauna of its surroundings, guests shouldn't be surprised to see giraffes or elephants while enjoying the outdoor rainfall shower. Singita's commitment to 'touch the earth lightly' in an effort of preservation means nature elegantly intertwines itself into the architecture.

As much as the Lodge is about rest and relaxation, it is also about discovery and adventure. Early morning safaris greet guests with African sunrises that could awaken the most dormant of souls. Beyond pointing to large lion herds and bathing hippos, guides meticulously spot insects camouflaged as twigs, utterly undetectable by the untrained eye.

The journey doesn't end after the game drive though. South Africa is home to a vast and esteemed collection of wineries. Red, white, and rosé enthusiasts can savor their surroundings with a glass from one of the significant wine collections in the country, while deep fried crickets are served as a snack – Singita's way of introducing guests to a common source of protein depended on by the local community. For those who aren't jumping at the chance, the lodge also offers delectable insect-free cuisine. ////

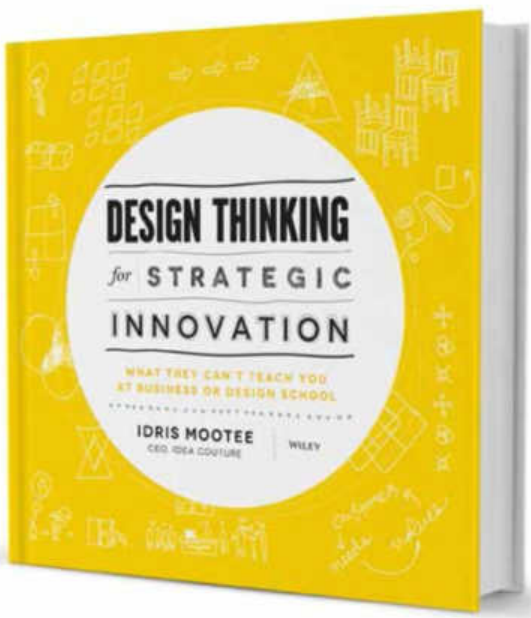
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